EXHIBIT D

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

APPLE, INC., Plaintiff, v. MASIMO CORPORATION and SOUND UNITED, LLC, Defendants.	)	C.A. No. 1:22-cv-01378-MN-JLH JURY TRIAL DEMANDED
MASIMO CORPORATION and CERCACOR LABORATORIES, INC., Counter-Claimants, v. APPLE INC., Counter-Defendant.	)	

DEFENDANT MASIMO CORPORATION'S ANSWER
TO COMPLAINT AND FIRST AMENDED COUNTERCLAIMS

Defendant Masimo Corporation ("Masimo") hereby submits its answer to the Complaint of Plaintiff Apple Inc. ("Plaintiff" or "Apple") and Masimo and Cercacor Laboratories ("Cercacor") hereby submit their first amended counterclaims as follows:

INTRODUCTION

1. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 1 of the Complaint, and on that basis denies those allegations.

2. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 2 of the Complaint, and on that basis denies those allegations.

3. Masimo admits that it is a medical-technology company that develops,

manufactures, and sells health equipment, including hospital equipment, and that it has an industry leading non-invasive health monitoring technology. Masimo admits that it released its W1 watch to the general public this year, and that Masimo sells the watch directly to consumers. Masimo denies the remaining allegations in Paragraph 3 of the Complaint.

4. Masimo denies the allegations in Paragraph 4 of the Complaint.

THE PARTIES

5. Masimo admits the allegations in Paragraph 5 of the Complaint.

6. Masimo admits the allegations in Paragraph 6 of the Complaint.

7. Masimo denies the allegations in Paragraph 7 of the Complaint.

8. The allegations in Paragraph 8 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Masimo denies the allegations.

JURISDICTION AND VENUE

9. Masimo admits the allegations in Paragraph 9 of the Complaint.

10. Masimo admits that it is subject to personal jurisdiction in this Court. The remaining allegations in Paragraph 10 of the Complaint are not directed against Masimo and, therefore, no answer is made to these allegations.

11. Masimo admits that venue is proper in this Court with respect to Masimo. The remaining allegations in Paragraph 11 of the Complaint are not directed against Masimo and, therefore, no answer is made to these allegations.

BACKGROUND

12. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 12 of the Complaint, and on that basis denies those allegations.

13. Masimo admits that Apple has accused the W1 watch and charger of patent infringement. Masimo denies the remaining allegations in Paragraph 13 of the Complaint.

14. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 14 of the Complaint, and on that basis denies those allegations.

15. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 15 of the Complaint, and on that basis denies those allegations.

16. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 16 of the Complaint, and on that basis denies those allegations.

17. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 17 of the Complaint, and on that basis denies those allegations.

18. Masimo admits that U.S. Patent Nos. 10,627,783 and 10,987,054 name Apple, Inc. as the "Applicant" and "Assignee" on the face of each patent. Masimo denies the remaining allegations in Paragraph 18 of the Complaint.

19. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 19 of the Complaint, and on that basis denies those allegations.

20. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 20 of the Complaint, and on that basis denies those allegations.

21. Masimo admits that it is a medical-technology company that develops, manufactures, and sells health equipment, including hospital equipment. Masimo denies the remaining allegations in Paragraph 21 of the Complaint.

22. Masimo admits that in April 2022 it acquired Sound United. Masimo admits that it released its W1 watch to the general public this year. Masimo lacks knowledge and information sufficient to form a belief as to the truth of the allegations in Paragraph 22 of the Complaint

regarding Apple's work on the Apple Watch. Masimo denies the remaining allegations in this paragraph.

23. Masimo admits that it is a medical-technology company that develops, manufactures, and sells health equipment, including hospital equipment. Masimo denies the remaining allegations in Paragraph 23 of the Complaint.

24. Masimo denies the allegations in Paragraph 24 of the Complaint.

25. Masimo admits that its business includes, among many other things, selling hospital products that use disposable biometric sensors and selling disposable sensors. Masimo admits that its annual reports reference, among many other things, its installed base of hospital equipment. Masimo admits that its Fiscal Year 2021 Form 10-K Annual Report stated, "We currently derive the majority of our revenue from our Masimo SET® platform, Masimo rainbow SET® platform and related products," and "We are highly dependent upon the continued success and market acceptance of our proprietary Masimo SET® and Masimo rainbow SET® technologies that serve as the basis of our primary product offerings." Masimo denies the remaining allegations in Paragraph 25 of the Complaint.

26. Masimo admits that for years, one of its focuses has been clinical-grade pulse oximetry, and that Masimo has an industry leading non-invasive patient monitoring technology for physiological parameters such as pulse rate and arterial-oxygen saturation. Masimo admits that after it introduced some of its non-invasive patient monitoring technology, many others used that technology without permission. Masimo admits that it filed patent infringement lawsuits, and that Masimo prevailed in those lawsuits. Masimo admits that it received royalty income from competitors, including Nellcor, but Masimo's business has continued to grow and outpace any royalty income. Masimo denies the remaining allegations in Paragraph 26 of the Complaint.

27. Masimo admits that its Fiscal Year 2021 Form 10-K Annual report stated, "Certain of our patents related to our technologies have begun to expire. Upon the expiration of our issued or licensed patents, we generally lose some of our rights to exclude competitors from making, using, selling or importing products using the technology based on the expired patents." Masimo denies the remaining allegations in Paragraph 27 of the Complaint.

28. Masimo admits that its Fiscal Year 2021 Form 10-K Annual Report stated, "Some of the world's largest technology companies that have not historically operated in the healthcare or medical device space, such as Alphabet Inc., Amazon.com, Inc., Apple Inc., Samsung Electronics Co., Ltd. and others, have developed or may develop products and technologies that may compete with our current or future products and technologies. For example, in September 2020, Apple, Inc. announced that its Apple Watch Series 6 includes a pulse oximetry monitoring feature, which may compete with certain of our existing products and products in development, including the consumer versions of our iSpO2® and MightySat® pulse oximeters. In addition, in September 2021, Apple, Inc. announced that its Apple Watch Series 7 includes a blood oxygen level monitoring feature and a sleep tracking function, both of which compete with our existing products. These companies have substantially greater capital, research and development, and sales resources than we have. To effectively compete, we may need to expand our product offerings and distribution channels." Masimo admits that its Fiscal Year 2018 Form 10-K Annual Report stated, "Some of the world's largest technology companies that have not historically operated in the healthcare or medical device space, such as Apple, Alphabet, Samsung and others, have developed or may develop products and technologies that may compete with our current or future products and technologies." Masimo admits that its Fiscal Year 2020 Form 10-K Annual Report stated, "Some of the world's largest technology companies that have not historically operated in the

healthcare or medical device space, such as Alphabet Inc., Apple Inc., Samsung Electronics Co., Ltd. and others, have developed or may develop products and technologies that may compete with our current or future products and technologies. These companies have substantially greater capital, research and development, and sales resources than we have. If we are unable to successfully compete against them, our financial performance could decline." Masimo denies the remaining allegations in Paragraph 28 of the Complaint.

29. Masimo denies the allegations in Paragraph 29 of the Complaint.

30. Masimo admits that it sued Apple in January 2020 in the Central District of California alleging that Apple misappropriated numerous Masimo trade secrets and infringed numerous Masimo patents. Masimo denies the remaining allegations in Paragraph 30 of the Complaint.

31. Masimo admits that it filed a complaint against Apple before the U.S. International Trade Commission ("ITC") seeking an order that bans Apple Watch from being imported into the United States because the Apple Watch infringes Masimo's patents. Masimo denies the remaining allegations in Paragraph 31 of the Complaint.

32. Masimo admits that it filed a Statement of Public Interest with the ITC that included the following statements: "Thus, no public interest concerns exist with the remedies sought by Masimo;" "Masimo offers pulse oximetry devices with reliable medical-grade measurements, directly to consumers;" and "Even if smartwatches were necessary for some important public interest function, Apple and other third parties can provide an adequate supply of alternatives to consumers." Masimo denies the remaining allegations in Paragraph 32 of the Complaint.

33. Masimo admits that its complaint before the ITC identified a Masimo watch as a domestic industry product for four of its patents. Masimo denies the allegations in Paragraph 33

of the Complaint.

34. Masimo denies the allegations in Paragraph 34 of the Complaint.

35. Masimo admits the allegations in Paragraph 35 of the Complaint.

36. Masimo denies the allegations in Paragraph 36 of the Complaint.

37. Masimo admits that it announced the acquisition of Sound United in February 2022 for $1.025 billion, and that Masimo completed that acquisition in April 2022. Masimo admits that in a February 15, 2022 press release, Sound United described itself as "a leading innovator of premium, high-performance audio products for consumers." Masimo admits that in an April 2022 press release it stated, "Masimo will leverage Sound United's expertise across consumer channels to accelerate distribution of the combined company's expanding portfolio of consumer-facing healthcare products." Masimo admits that its CEO stated on an earnings call in February 2022: "We like Sound United the most for several reasons. One, its management team. Two, the distribution channel, that is essential to what we are doing as an important product for us which is the Masimo Watch." Masimo denies the remaining allegations in Paragraph 37 of the Complaint.

38. Masimo admits that the referenced article states, "But, now Masimo has launched its own W1 watch to compete with Apple. This feels more personal than fiduciary." Masimo denies the remaining allegations in Paragraph 38 of the Complaint.

39. Masimo admits that in August 2022 it announced the full market consumer release of its W1 watch. Masimo denies the allegations in Paragraph 39 of the Complaint.

40. Masimo denies the allegations in Paragraph 40 of the Complaint.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,076,257

41. Masimo repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–40.

42. Masimo admits that U.S. Patent No. 10,076,257 ("'257 Patent") lists on its face the title "Seamlessly Embedded Heart Rate Monitor," an issue date of September 18, 2018, "Gloria Lin" as one of many named inventors, and "Apple Inc." as the assignee. The remaining allegations in Paragraph 42 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Masimo denies that the '257 Patent was validly issued.

43. The allegations in Paragraph 43 of the Complaint are legal conclusions to which no response is required.

44. The allegations in Paragraph 44 of the Complaint are legal conclusions to which no response is required.

45. Masimo admits that claim 1 of the '257 Patent is reproduced in Paragraph 45 of the Complaint.

46. Masimo denies the allegations in Paragraph 46 of the Complaint.

47. The allegations in Paragraph 47 of the Complaint are legal conclusions to which no response is required.

48. The allegations in Paragraph 48 of the Complaint are legal conclusions to which no response is required.

49. The allegations in Paragraph 49 of the Complaint are legal conclusions to which no response is required.

50. The allegations in Paragraph 50 of the Complaint are legal conclusions to which no response is required.

51. The allegations in Paragraph 51 of the Complaint are legal conclusions to which no response is required.

52. The allegations in Paragraph 52 of the Complaint are legal conclusions to which no

response is required.

53. Masimo denies the allegations in Paragraph 53 of the Complaint.

54. Masimo denies the allegations in Paragraph 54 of the Complaint.

55. Masimo denies the allegations in Paragraph 55 of the Complaint.

56. Masimo denies the allegations in Paragraph 56 of the Complaint.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 10,627,783

57. Masimo repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–56.

58. Masimo admits that U.S. Patent No. 10,627,783 ("'783 Patent") lists on its face the title "Wearable Electronic Device," an issue date of April 21, 2020, "Fletcher R. Rothkopf" as one of many named inventors, and "Apple Inc." as the assignee. The remaining allegations in Paragraph 58. of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Masimo denies that the '783 Patent was validly issued.

59. The allegations in Paragraph 59 of the Complaint are legal conclusions to which no response is required.

60. The allegations in Paragraph 60 of the Complaint are legal conclusions to which no response is required.

61. Masimo admits that claim 9 of the '783 Patent is reproduced in Paragraph 61 of the Complaint.

62. Masimo denies the allegations in Paragraph 62 of the Complaint.

63. The allegations in Paragraph 63 of the Complaint are legal conclusions to which no response is required.

64. The allegations in Paragraph 64 of the Complaint are legal conclusions to which no

response is required.

65. The allegations in Paragraph 65 of the Complaint are legal conclusions to which no response is required.

66. The allegations in Paragraph 66 of the Complaint are legal conclusions to which no response is required.

67. The allegations in Paragraph 67 of the Complaint are legal conclusions to which no response is required.

68. The allegations in Paragraph 68 of the Complaint are legal conclusions to which no response is required.

69. Masimo denies the allegations in Paragraph 69 of the Complaint.

70. Masimo denies the allegations in Paragraph 70 of the Complaint.

71. Masimo denies the allegations in Paragraph 71 of the Complaint.

72. Masimo denies the allegations in Paragraph 72 of the Complaint.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 10,942,491

73. Masimo repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–72.

74. Masimo admits that U.S. Patent No. 10,942,491 ("'491 Patent") lists on its face the title "Wearable Electronic Device," an issue date of March 9, 2021, "Fletcher R. Rothkopf" as one of many named inventors, and "Apple Inc." as the assignee. The remaining allegations in Paragraph 74 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Masimo denies that the '491 Patent was validly issued.

75. The allegations in Paragraph 75 of the Complaint are legal conclusions to which no response is required.

76. The allegations in Paragraph 76 of the Complaint are legal conclusions to which no response is required.

77. Masimo admits that claim 7 of the '491 Patent is reproduced in Paragraph 77 of the Complaint.

78. Masimo denies the allegations in Paragraph 78 of the Complaint.

79. The allegations in Paragraph 79 of the Complaint are legal conclusions to which no response is required.

80. The allegations in Paragraph 80 of the Complaint are legal conclusions to which no response is required.

81. The allegations in Paragraph 81 of the Complaint are legal conclusions to which no response is required.

82. The allegations in Paragraph 82 of the Complaint are legal conclusions to which no response is required.

83. The allegations in Paragraph 83 of the Complaint are legal conclusions to which no response is required.

84. The allegations in Paragraph 84 of the Complaint are legal conclusions to which no response is required.

85. The allegations in Paragraph 85 of the Complaint are legal conclusions to which no response is required.

86. Masimo denies the allegations in Paragraph 86 of the Complaint.

87. Masimo denies the allegations in Paragraph 87 of the Complaint.

88. Masimo denies the allegations in Paragraph 88 of the Complaint.

89. Masimo denies the allegations in Paragraph 89 of the Complaint.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 10,987,054

90. Masimo repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–89.

91. Masimo admits that U.S. Patent No. 10,987,054 ("'054 Patent") lists on its face the title "Wearable Electronic Device for Sensing Biological Parameters," an issue date of April 27, 2021, "Sameer Pandya" as one of many named inventors, and "Apple Inc." as the assignee. The remaining allegations in Paragraph 91 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Masimo denies that the '054 Patent was validly issued.

92. The allegations in Paragraph 92 of the Complaint are legal conclusions to which no response is required.

93. The allegations in Paragraph 93 of the Complaint are legal conclusions to which no response is required.

94. Masimo admits that claim 9 of the '054 Patent is reproduced in Paragraph 94 of the Complaint.

95. Masimo denies the allegations in Paragraph 95 of the Complaint.

96. The allegations in Paragraph 96 of the Complaint are legal conclusions to which no response is required.

97. The allegations in Paragraph 97 of the Complaint are legal conclusions to which no response is required.

98. The allegations in Paragraph 98 of the Complaint are legal conclusions to which no response is required.

99. The allegations in Paragraph 99 of the Complaint are legal conclusions to which no

response is required.

100. The allegations in Paragraph 100 of the Complaint are legal conclusions to which no response is required.

101. The allegations in Paragraph 101 of the Complaint are legal conclusions to which no response is required.

102. The allegations in Paragraph 102 of the Complaint are legal conclusions to which no response is required.

103. The allegations in Paragraph 103 of the Complaint are legal conclusions to which no response is required.

104. Masimo denies the allegations in Paragraph 104 of the Complaint.

105. Masimo denies the allegations in Paragraph 105 of the Complaint.

106. Masimo denies the allegations in Paragraph 106 of the Complaint.

107. Masimo denies the allegations in Paragraph 107 of the Complaint.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 11,106,352

108. Masimo repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–107.

109. Masimo admits that U.S. Patent No. 11,106,352 ("'352 Patent") lists on its face the title "Devices, Methods, and Graphical User Interfaces for Accessing Notifications," an issue date of August 31, 2021, "William M. Tyler" as the inventor, and "Apple Inc." as the assignee. The remaining allegations in Paragraph 109 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Masimo denies that the '352 was validly issued.

110. The allegations in Paragraph 110 of the Complaint are legal conclusions to which

no response is required.

111. The allegations in Paragraph 111 of the Complaint are legal conclusions to which no response is required.

112. Masimo admits that claim 9 of the '352 Patent is reproduced in Paragraph 112 of the Complaint.

113. Masimo denies the allegations in Paragraph 113 of the Complaint.

114. The allegations in Paragraph 114 of the Complaint are legal conclusions to which no response is required.

115. The allegations in Paragraph 115 of the Complaint are legal conclusions to which no response is required.

116. The allegations in Paragraph 116 of the Complaint are legal conclusions to which no response is required.

117. The allegations in Paragraph 117 of the Complaint are legal conclusions to which no response is required.

118. The allegations in Paragraph 118 of the Complaint are legal conclusions to which no response is required.

119. The allegations in Paragraph 119 of the Complaint are legal conclusions to which no response is required.

120. The allegations in Paragraph 120 of the Complaint are legal conclusions to which no response is required.

121. Masimo denies the allegations in Paragraph 121 of the Complaint.

122. Masimo denies the allegations in Paragraph 122 of the Complaint.

123. Masimo denies the allegations in Paragraph 123 of the Complaint.

124. Masimo denies the allegations in Paragraph 124 of the Complaint.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 11,474,483

125. Masimo repeats and incorporates here by reference its responses to the allegations in preceding Paragraphs 1–124.

126. Masimo admits that U.S. Patent No. 11,474,483 ("'483 Patent") lists on its face the title "Wearable Electronic Device," an issue date of October 18, 2022, "Fletcher R. Rothkopf" as one of many named inventors, and "Apple Inc." as the assignee. The remaining allegations in Paragraph 126 of the Complaint are legal conclusions to which no response is required. To the extent the allegations are deemed factual, Masimo denies that the '483 Patent was validly issued.

127. The allegations in Paragraph 127 of the Complaint are legal conclusions to which no response is required.

128. The allegations in Paragraph 128 of the Complaint are legal conclusions to which no response is required.

129. Masimo admits that claim 1 of the '483 Patent is reproduced in Paragraph 129 of the Complaint.

130. Masimo denies the allegations in Paragraph 130 of the Complaint.

131. The allegations in Paragraph 131 of the Complaint are legal conclusions to which no response is required.

132. The allegations in Paragraph 132 of the Complaint are legal conclusions to which no response is required.

133. The allegations in Paragraph 133 of the Complaint are legal conclusions to which no response is required.

134. The allegations in Paragraph 134 of the Complaint are legal conclusions to which

no response is required.

135. The allegations in Paragraph 135 of the Complaint are legal conclusions to which no response is required.

136. The allegations in Paragraph 136 of the Complaint are legal conclusions to which no response is required.

137. The allegations in Paragraph 137 of the Complaint are legal conclusions to which no response is required.

138. The allegations in Paragraph 138 of the Complaint are legal conclusions to which no response is required.

139. The allegations in Paragraph 139 of the Complaint are legal conclusions to which no response is required.

140. The allegations in Paragraph 140 of the Complaint are legal conclusions to which no response is required.

141. The allegations in Paragraph 141 of the Complaint are legal conclusions to which no response is required.

142. Masimo denies the allegations in Paragraph 142 of the Complaint.

143. Masimo denies the allegations in Paragraph 143 of the Complaint.

144. Masimo denies the allegations in Paragraph 144 of the Complaint.

145. Masimo denies the allegations in Paragraph 145 of the Complaint.

PRAYER FOR RELIEF

Masimo denies that Plaintiff is entitled to any of the relief enumerated in the Complaint or to any relief whatsoever.

DEFENSES

First Defense

The claims of the '257 Patent, '783 Patent, '491 Patent, '054 Patent, '352 Patent, and '483 Patent (collectively, the "Apple Patents") are invalid for failure to satisfy one or more of the requisite Conditions of Patentability set forth in Title 35 of the United States Code, including, without limitation, §§ 101, 102, 103, 112, and/or in view of the defenses recognized in 35 U.S.C. § 282(b), as further set forth below in Masimo's counterclaim of invalidity.

Second Defense

The '783, '491, and '483 Patents are unenforceable for inequitable conduct as explained below in Masimo's counterclaims, the allegations of which are incorporated by reference.

Third Defense

Apple's claims are barred, in whole or in part, by the doctrine of patent misuse.

Fourth Defense

Apple's claims are barred, in whole or in part, by the doctrine of unclean hands.

Fifth Defense

Apple's claims are barred, in whole or in part, by reason of estoppel, the dedication-disclosure rule, and/or the other legal doctrines limiting the scope of the claims and their equivalents. Apple is estopped from construing any valid claim of the Apple Patents to be infringed or to have been infringed, either literally or by application of the doctrine of equivalents, by any product made, used, imported, sold, or offered for sale by Masimo in view of prior art and/or because of admissions, representations, and/or statements made to the Patent Office during prosecution of any application leading to the issuance of the Apple Patents or any related patent,

because of disclosures or language in the specifications of the Apple Patents, and/or because of limitations in the claims of the Apple Patents.

Sixth Defense

To the extent that Apple and/or any predecessors in interest or any licensees to the Apple Patents failed to properly mark any of their relevant products or materials as required by 35 U.S.C. § 287, or otherwise failed to give proper notice that Masimo's actions allegedly infringe the Apple Patents, Masimo is not liable to Apple for the acts alleged to have been performed before Masimo received actual notice that the accused devices were allegedly infringing the Apple Patents. Apple's claims for relief are further barred, in whole or in part, under 35 U.S.C. §§ 286 and 288. Apple failed to give proper notice to Masimo of its claims under the patent laws of the United States and have failed to establish any basis for damages and/or liability prior to patent issuance.

COUNTERCLAIMS

I. INTRODUCTION AND STATEMENT OF THE CASE

1. Masimo brings antitrust counterclaims to seek damages and permanently enjoin Apple's ongoing efforts to block, or significantly limit and hinder, competition in the relevant market for health watches. Masimo also brings false advertising claims to seek damages and permanently enjoin Apple's efforts to mislead consumers into believing the Apple Watch is capable of medical monitoring uses that significantly exceed its actual capability. Masimo and Cercacor also bring patent infringement claims against the Blood Oxygen feature in several versions of the Apple Watch.

2. Masimo has long been recognized as the leader in non-invasive health monitoring technology. Masimo is best known for its pioneering pulse oximetry technology, which solved problems that the industry believed for decades could not be solved. Masimo's Signal Extraction Technology® (SET®), revolutionized non-invasive patient monitoring by providing reliable Measure-through Motion and Low Perfusion™ pulse oximetry. As a result, Masimo grew from a garage startup to the leader in non-invasive physiological monitoring technology. Today, Masimo SET is used in 9 out of the top 10 United States hospitals and on over 200 million patients per year worldwide. Along the way, Masimo overcame patent infringement from industry giants as well as anticompetitive conduct from the world's largest medical device company. *Mallinckrodt, Inc. v. Masimo Corp.*, 147 F. App'x 158 (Fed. Cir. 2005); *Masimo Corp. v. Tyco Health Care Group*, 350 Fed. Appx. 95 (9th Cir. 2009); *Masimo Corp. v. Philips Elec. N. Amer. Corp*., 2015 WL 2379485 (D. Del. May 18, 2015).

3. Following its initial success with Masimo SET®, Masimo re-invested its earnings heavily in non-invasively measuring other blood parameters, including total hemoglobin,

carboxyhemoglobin, and methemoglobin. Masimo released the first of these parameters in 2005 and, to date, Masimo is the only company capable of delivering these technologies to hospitals in the United States, despite many trying. Masimo continues to invest over 10% of its revenue to future product R&D, leading the industry in the innovation metric for companies the size of Masimo or larger.

4. Apple is a consumer electronics company that, before meeting Masimo, had no experience in patient monitoring technology. After deciding that it wanted to enter the field, Apple followed the same playbook that it used to enter and capture numerous other markets. Apple identified Masimo as the technological leader in the field. Apple approached Masimo and pretended to be interested in a partnership. Instead, however, Apple raided numerous Masimo employees and unlawfully took Masimo's technology.

5. Masimo sued Apple in 2020 in the Central District of California for, among other things, trade secret misappropriation. That court found that Masimo demonstrated a likelihood of success on the merits. Nonetheless, Apple continued to use Masimo's trade secrets while it fought every aspect of that case. Apple continued to use Masimo's technology pursuant to its longstanding practice of so-called "efficient" (or more accurately described "predatory") infringement, which is Apple's practice of infringing or misappropriating intellectual property, even after being informed of such improper conduct, because it is more advantageous to Apple to do so than pay to lawfully use or develop the intellectual property. Apple's former Director of Patent Licensing & Strategy observed that "efficient infringement" could "almost be viewed as a 'fiduciary responsibility,' at least for cash-rich firms that can afford to litigate without end."

6. Unsatisfied with merely stealing Masimo's technology, Apple has engaged in a variety of other conduct in an attempt to prevent Masimo's recently released consumer

physiological monitoring watch (the Masimo W1) from competing against the Apple Watch. Apple asserts patents it knowingly obtained through fraud in an attempt to exclude the Masimo W1 from the market. For example, as discussed in detail below, Apple withheld references that he knew were material to patentability while prosecuting Apple asserted patents. Apple knew of these references because Apple argued the very same references rendered Masimo and other competitors' patents invalid. Apple now seeks to enforce its fraudulently obtained patents to exclude Masimo from the health watch market and bolster or enhance Apple's monopoly power—classic anticompetitive conduct that violates the antitrust laws.

7. Apple has also abused and improperly leveraged its monopoly power as the gatekeeper of all iOS applications in an attempt to harm Masimo, and competition as a whole, in the separate health watch market. Just weeks ago, Apple unjustifiably refused to approve Masimo's companion iOS health app for the Masimo W1. Apple did so by relying on a pretense that Masimo must meet certain requirements that Apple itself does not satisfy for its competing product. As it has done to many others, Apple is exploiting its monopoly position in an attempt to learn information about Masimo's products that other competitors could not obtain, and to disadvantage its competitor products by placing artificial restraints on its competitors.

8. Apple is also engaging in false advertising in an attempt to maintain its dominant position in the health watch market. Because of the complex health technology at issue, Apple has been unable to duplicate the quality of Masimo's technology despite obtaining Masimo's trade secrets. Apple attempts to conceal the deficiencies in its product by convincing customers that the Apple Watch provides life-saving monitoring technology when it actually suffers from severe deficiencies that Apple covers up. Apple's claims are false and threaten to injure consumers and drive-up healthcare costs.

9. Apple's conduct has harmed, and if left unchecked will continue to harm, Masimo, competition, and consumers. Apple seeks to use fraudulently obtained patents to exclude from the market the very competitor most able to provide a competitive check against Apple and bring world-leading technology directly to consumers. If Apple's scheme is successful, Apple will eliminate consumers' ability to choose products that perform far better than the Apple Watch. Apple is also exploiting its monopoly power over iOS applications to diminish the quality of products in the separate market for health watches, to the detriment of Masimo, consumers, healthcare providers, payers, and competition. Apple is doing so to protect its own dominant share of the health watch market and continue flooding that market with technologically inferior watches that will eventually undermine consumer confidence in health watches. Apple is further misleading customers into purchasing and relying on Apple Watches for health monitoring, including to monitor serious conditions, even though the Apple Watch is woefully deficient.

10. Apple has engaged in the above anticompetitive scheme because it fears competition on the merits. Apple is terrified that it will lose its dominant position if consumers have the option to purchase health watches from the world leader in patient monitoring technology. Indeed, Apple sought expedited discovery to support a motion for preliminary injunction, asserting that the Masimo W1 will substantially erode Apple's market share. The Masimo W1 is so technologically advanced that Apple claims Masimo will obtain 100% market share if Masimo is allowed to continue selling the Masimo W1. Apple should not be permitted to eliminate such vital competition.

11. Apple also continues its willful infringement of Masimo's patented non-invasive monitoring technologies. For example, the Blood Oxygen feature in Apple's Series 6 and greater watches infringes numerous Masimo patents.

12. Accordingly, Masimo brings counterclaims for monopolization, attempted monopolization, unfair competition, false advertising. Masimo and Cercacor bring counterclaims for infringement of Masimo and Cercacor patents. Masimo also brings declaratory judgment counterclaims of non-infringement, invalidity, and unenforceability of Apple's asserted patents.

II. THE PARTIES

13. Masimo is a Delaware corporation with its principal place of business at 52 Discovery, Irvine, California 92618.

14. Cercacor is a Delaware corporation with its principal place of business at 15750 Alton Pkwy, Irvine, California 92618.

15. As disclosed in Apple's Complaint, Apple claims to be a California corporation with its principal place of business at One Apple Park Way, Cupertino, California 95014.

III. JURISDICTION AND VENUE

16. These counterclaims arise under the patent laws of the United States, 35 U.S.C. § 100 *et seq.*, federal antitrust laws, § 2 of the Sherman Act, 15 U.S.C. § 2, the Lanham Act, 15 U.S.C. § 1125, and the Declaratory Judgment Act 28, U.S.C. §§ 2201 and 2202.

17. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331, 1337, 1338, and 1367(a), and 15 U.S.C. § 15.

18. Venue is proper in this Judicial District because, among other reasons, Apple sued Masimo in this judicial district for infringing U.S. Patent Nos. 10,076,257, 10,627,783, 10,942,491, 10,987,054, 11,106,352, 11,474,483, D883,279, D947,842, D962,936, and D735,131.

19. Venue is also proper in this District under 15 U.S.C. §§ 15 and 22, and under 28 U.S.C. § 1391(b) and (c). For venue purposes, Apple can be found in and transacts business in this District. In addition, Apple has engaged in the conduct alleged herein in this District. Apple's

anticompetitive scheme, false advertising, and other violations alleged herein, have impacted and will impact competitors and consumers in this District. Masimo is one such competitor, which is incorporated in this District.

20. Apple's misconduct, pleaded below, occurs in and affects interstate commerce. The Apple Watch is manufactured and shipped in interstate commerce. Apple regularly makes sales and ships Apple Watches to all parts of the country, and it has used the below-pleaded anticompetitive conduct to monopolize commerce in the relevant market throughout the United States. Apple's anticompetitive conduct directly affects the price and volume of clinical monitoring watches shipped in interstate commerce.

21. Apple is subject to personal jurisdiction in this district because, among other reasons, Apple sued Masimo in this judicial district.

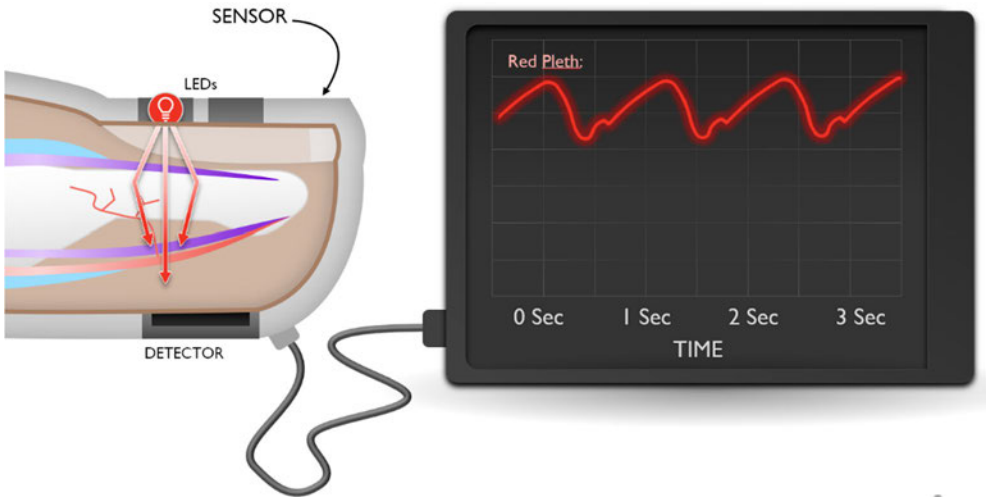
IV. FACTUAL BACKGROUND

A. Relevant Technology

1. Pulse Oximetry Technology

22. Pulse oximetry measures arterial oxygen saturation by shining light of particular wavelengths into an individual's blood-carrying tissue and measuring the light after it has interacted with the tissue. Hemoglobin in the blood binds with oxygen in the lungs. The heart pumps that blood through the human body. After oxygenated hemoglobin is transported to tissue, deoxygenated hemoglobin returns to the lungs. Bright red oxygenated blood absorbs light differently than dark red deoxygenated blood.

23. Pulse oximetry systems typically include one or more sensors that attach to a user to detect a physiological signal. This sensor measures signals by detecting light with an electronic part called a photodetector or detector. That detector makes an electrical signal that represents how much light reaches the photodetector. The drawing below illustrates the detected signal:



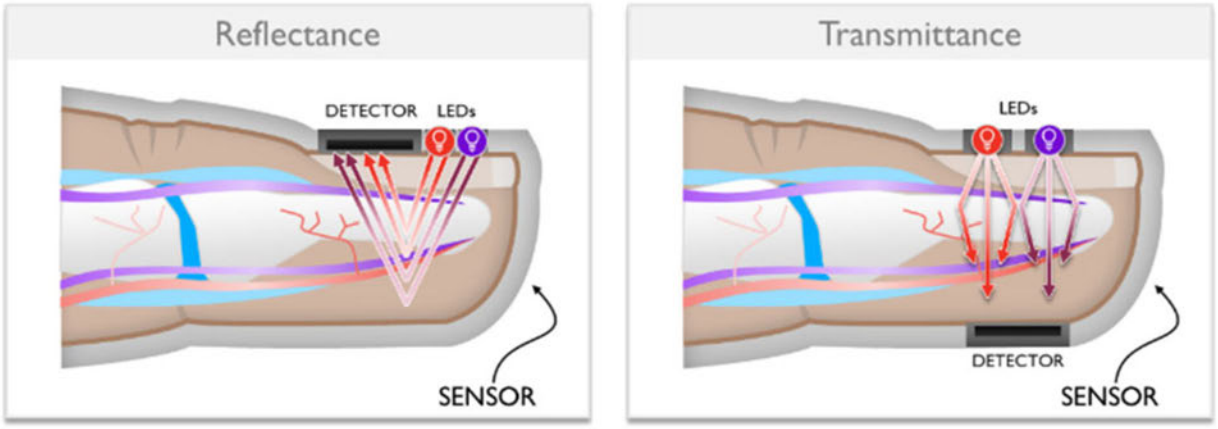
24. The detected signal is called a photoplethysmogram, pleth, or PPG for short. The PPG contains information about the blood flow and blood content at the measurement site, such as a finger. The amount of light absorbed by the tissue and the corresponding detected signal change over time. One reason this happens is because the heart is pumping blood through the body, which results in pulsatile blood flow. Those pulses can be used to calculate pulse rate.

25. The pulse oximeter typically collects detected red and infrared light signals, and uses the ratio of them to determine oxygen saturation. Early generation pulse oximeters, and many pulse oximeters to this day, calculate incorrect measurements or no measurements at all when the PPG is corrupted by movement or otherwise.

26. The PPG signal collected by Masimo is a high-fidelity signal rich with extensive additional data about the condition of the person being monitored. This is not generally extendable to PPG signals from all pulse oximeters, because there is usually too much noise in a typical PPG.

However, Masimo's industry leading ability to detect and process the PPG allows it to extract many parameters from the signal. For example, the Masimo PPG can be used to detect and identify heart rhythm disturbances, such as arrhythmias, respiration rate from the PPG, a pleth variability index or PVI, relative hydration, and fluid responsiveness, among others.

27. Because light either transmits through tissue and backscatters, or reflects back after entering tissue, pulse oximeter sensors can operate either by transmittance or reflectance. For pulse oximeter sensors operating by transmittance, the LEDs and the detector are on opposite sides of the tissue from each other. For pulse oximeter sensors operating by reflectance, detectors are on the same side of the tissue as the LEDs. Both methods are illustrated below:



2. <u>Electrocardiogram Technology</u>

28. Electrocardiogram (ECG) technology records a heart's electrical signals and can create a graph of voltage versus time for such electrical signals using electrodes placed on the skin. The electrodes can detect electrical changes caused by cardiac muscles. ECG technology is commonly used to monitor a person's heart. It can be used to detect various heart problems, such as irregular heart rhythms and arrhythmias.

29. Traditionally, ECG technology used numerous electrodes or leads placed on a person's chest. Other devices with fewer electrodes are also capable of recording an ECG. For

example, some health watches include ECG technology that includes one or more electrodes on the bottom of the watch that contacts the wrist and one or more electrodes located in another location. The user touches that other location of the watch with their opposite hand, thereby creating an electrical path from one arm to the other that passes through the heart.

B. Masimo's History Of Innovation

30. Masimo is a medical technology company that revolutionized non-invasive monitoring of physiological parameters, such as pulse rate, arterial oxygen saturation, and many others.

31. Before Masimo, non-invasive measurements from the PPG were plagued by unreliability, often when the measurement was needed most, due to the person moving or having low peripheral blood flow (known as "low perfusion"). The industry had essentially given up on solving these problems, concluding they were largely unsolvable. Pulse oximeters falsely alarmed 70 to 90 percent of the time. Masimo's pioneering technology, known as Masimo Signal Extraction Technology ("Masimo SET"), solved these problems and dramatically improved the reliability of monitoring and reporting physiological signals derived from the PPG. Masimo SET reduced false alarms by 97% and improved detection of true events. Until the advent of Masimo SET pulse oximetry, pulse oximeters had not been proven to improve patient outcomes. Clinical studies with Masimo SET have shown a dramatic reduction in ROP (eye damage, including blindness) with babies in the NICU, detection of CCHD in newborns, elimination of opioid induced respiratory depression and death in post-surgical patients and mortality reduction in Covid patients at home. The innovation of Masimo SET also permitted Masimo to eventually develop many other parameters from the rich data it was able to extract from the PPG using this revolutionary technology.

32. Following its initial success with Masimo SET, Masimo invested heavily in developing additional breakthrough measurement technologies, such as non-invasively measuring total hemoglobin, carboxyhemoglobin, and methemoglobin. Masimo has continued to innovate, succeeding where others have consistently failed. Masimo was the first, and remains the only, company capable of delivering these game-changing technologies to hospitals in the United States. Among other things, these technologies can detect occult CO poisoning and improve transfusion management with noninvasive total hemoglobin monitoring, all while saving money for payors and care providers.

33. Today, Masimo sells a variety of monitors, including Masimo Root (left) and Radius-7 wearable monitor (middle and right).

34. Masimo SET is also delivered in finished products through Masimo's OEM relationships with other medical device companies. To accomplish this, Masimo provides OEM circuit boards to others, which contain Masimo technology manufactured by Masimo. In other words, Masimo does not license the third party to implement the technology itself, but rather licenses the third party to integrate Masimo's implementation via a circuit board and software on that circuit board. Masimo has over 100 OEM partners that deliver Masimo technology in their own products by incorporation of Masimo OEM circuit boards. For example, Philips and General Electric include Masimo technology in their multiparameter patient monitors.

35. From its inception, Masimo has continuously innovated cutting-edge noninvasive patient monitoring technologies. Masimo sought and received numerous U.S. patents for many of its inventions. Masimo's revolutionary technology was a key to Masimo's success. After Masimo introduced its technology, many competitors much larger than Masimo used Masimo's technology without a license, resulting in patent infringement lawsuits that ultimately confirmed the validity of Masimo's innovations. Masimo also maintains some technology as trade secrets.

36. In 1998, Masimo spun certain technologies off into a new company, Masimo Laboratories, Inc. or "Masimo Labs," to further research and develop its technologies. The name of the company was later changed to Cercacor Laboratories Inc. or "Cercacor." Cercacor and Masimo have a cross-license agreement to facilitate confidential collaboration between the companies. Cercacor is not owned by Masimo.

37. Like Masimo, Cercacor is an innovator of non-invasive monitoring technologies. Cercacor is on the frontline of understanding how measuring, tracking, and analyzing physiological parameters can impact pre-diabetic and diabetic patients, sports training and performance, and overall health and wellness principally in the consumer market. Cercacor continued the development that Masimo started on non-invasive total hemoglobin (SpHb), methemoglobin (SpMet), carboxyhemoglobin (SpCO) and other non-invasive physiological parameters. Leading hospitals around the world use Cercacor technology licensed to Masimo and sold under the name Masimo rainbow SET. Like Masimo, Cercacor also maintains some technology as trade secrets.

38. Masimo has also driven the adoption of patient monitoring beyond critical care areas. For many years, Masimo has introduced clinical-grade products that can be used in non-critical and non-clinical settings. By putting clinical-grade products into the hands of consumers,

Masimo enables both patients and their families as well as clinicians to remotely use such technology where patients are not usually monitored. This enhances patient care and reduces the burden on our healthcare system. This also gives consumers themselves access to the same industry-leading technology used in hospitals worldwide, even without a prescription.

39. Masimo launched $iSpO_2$, a consumer product, at the Las Vegas Consumer Electronics Show (CES) in January 2013. $iSpO_2$ is a pulse oximeter that connects to smartphones. $iSpO_2$ included Masimo's medical-grade technology, and its launch garnered extensive positive media coverage. Masimo soon launched MightySat, which is a fully integrated finger-clip pulse oximeter with a display that can wirelessly connect to smartphones. Below are pictures of $iSpO_2$ (left) and MightySAT (right).

40. Since then, Masimo has continued to innovate and release new products to help people in a variety of settings. For example, Masimo released Radius PPG (below), which is a wrist-worn clinical grade Masimo SET pulse oximeter.

41. Radius PPG works with a variety of clinical grade monitors, as well as some consumer products: (1) hospital monitors that normally would use a wired Masimo pulse oximetery sensor (2) "Masimo Sleep," which is available directly to consumers to provide continuous clinical grade data on their physiological status, and (3) "Masimo SafetyNet," which

allows doctors and hospitals to remotely monitor patients, including while they are recovering at home.

42. Masimo SafetyNet is a secure, cloud-based patient management platform featuring clinical-grade measurements and remote patient surveillance. Masimo SafetyNet was rapidly deployed for use during Covid-19 to allow hospitals to continuously monitor patients from their homes, when overcrowding at hospitals was plaguing healthcare. In February 2022, Masimo expanded the capabilities of SafetyNet to include secure video conferencing. Masimo SafetyNet® now allows clinicians and hospitals to conduct multi-way audio- and video-based virtual appointments with at-home patients while being able to view vital signs and other physiological data.

43. In January 2022, Masimo publicly unveiled the Masimo W1 Advanced Health Tracking Watch. The Masimo W1 is a versatile product that uses Masimo SET technology to provide continuous oxygen saturation, pulse rate, and respiration rate. In addition, it includes added capabilities for measuring hydration, counting steps, detecting falls, and capturing ECG signals. Masimo announced the limited market release of the W1 in May 2022, and it announced the full release in August 2022. The W1 was first offered and sold to hospitals, and then was made available directly to consumers. No other consumer product provides continuous pulse oximetry, respiration, and hydration measurements, much less in a wireless wearable form factor with the world's leading hospital-grade technology. Below are pictures of the Masimo W1.

C. Apple's Efforts To Obtain Masimo Technology

1. Apple's History Of Theft And Anticompetitive Conduct

44. Apple has a long history and culture of stealing intellectual property to gain a competitive edge. Apple's founder and long-time CEO, Steve Jobs, once said: "good artists copy; great artists steal – and we have always been shameless about stealing great ideas." Jobs also famously said he believed "It's better to be a pirate than join the navy." Apple still proudly flies pirate flags at its headquarters. An Apple Vice President recently tried to portray this attitude as a positive by claiming Steve Jobs meant taking something from someone else and making it your own.

45. Apple's practice of pretending to partner with others and then stealing their ideas is so common the industry has a name for it: Getting Sherlocked. Numerous commentators have collected examples of Apple taking innovations from other companies. https://dottech.org/85881/these-are-all-the-ideas-apple-stole-from-other-companies-or-people-and-sold-for-billions. *The Washington Post* published an article entitled "How Apple uses its App Store to copy the best ideas." https://www.washingtonpost.com/technology/2019/09/05/how-apple-uses-its-app-store-copy-best-ideas/. The article explains:

> Developers have come to accept that, without warning, Apple can make their work obsolete by announcing a new app or feature that uses or incorporates their ideas. Some apps have simply buckled under the pressure, in some cases shutting down. They generally don't sue Apple because of the difficulty and expense in fighting the tech giant—and the consequences they might face from being dependent on the platform.
>
> . . .
>
> The misfortune of having an idea copied by Apple even has an industry term. "Getting Sherlocked" harks back to the time Apple's desktop search tool called "Sherlock" borrowed many of the features of a third-party companion tool called "Watson," which no longer exists.

46. Apple has abused its power to gain an unfair advantage through anticompetitive conduct. In June 2013, one court found Apple "conspired with book publishers to keep e-book prices elevated, a decision that resulted in a $450 million fine [based on a June 2014 settlement prior to the start of the damages trial] for Apple." https://www.justice.gov/atr/case-document/file/486691/download . The court wrote:

> Apple seized the moment and brilliantly played its hand. Taking advantage of the Publisher Defendants' fear of and frustration over Amazon's pricing, as well as the tight window of opportunity created by the impending launch of the iPad on January 27 [2010] (the 'Launch'), Apple garnered the signatures [from book publishers] it needed to introduce the iBookstore at the Launch.

47. Apple's general counsel at the time (Bruce Sewell) later spoke about that case. https://www.youtube.com/watch?v=-wuf3KI76Ds&t=2s. While most companies would be devastated by such a ruling, Apple was not at all concerned. Sewell explained that case was an example of Apple making a conscious and deliberate choice to use the legal system to gain a "competitive advantage" over others by "sailing as close to the wind" as possible because capturing ebook sales was "so important" to Apple. Sewell then nonchalantly said Apple "ended up being sued by the government and ended up having to pay a large fine." He also explained that Apple's CEO, Tim Cook, did not discipline him for his role in allowing Apple to engage in

anticompetitive conduct. Rather, Cook applauded Sewell and said "that's the right choice." Cook told Sewell "don't let that scare you, I don't want you to stop pushing the envelope."

48. Tim Cook began to target "the health arena," following the death of Steve Jobs. After "upend[ing] three major categories of consumer electronics [MP3 players, smartphones, tablets], and in the process, becom[ing] the most valuable company on Earth," Apple selected its fourth target. "For its fourth act, Apple chose a **watch**. This was to be the next step in a dynasty—the first without the guidance of Steve Jobs." https://www.wired.com/2015/04/the-apple-watch/. Around the same time, "Apple's stock [was] down by as much as 40 percent from a record high because of concerns about the lack of new products." https://www.bloomberg.com/news/articles/2014-09-18/tim-cook-interview-the-iphone-6-the-apple-watch-and-being-nice. Apple was desperate to increase its stock price, and Cook was desperate to show Apple could thrive under his leadership.

49. As discussed in detail below, Apple targeted Masimo technology in 2013. But Apple also targeted other health companies. For example, AliveCor worked with Apple to release the KardiaBand for the Apple Watch, which was capable of recording an ECG. AliveCor alleges that Apple initially worked with AliveCor by approving AliveCor's apps and even advertising AliveCor's products to sell more Apple Watches. AliveCor alleges that Apple then stole its technology and engaged in anticompetitive conduct to drive AliveCor out of the market. AliveCor filed several lawsuits claiming that Apple infringed its intellectual property when Apple released the ECG feature with the Apple Watch Series 4.

50. Omni MedSci also sued Apple based on similar allegations. Omni alleges it had a series of meetings and email exchanges between 2014 and 2016 regarding its medical technology. Omni alleges that Michael O'Reilly (Masimo's former Chief Medical Officer that, as discussed

below, Apple recruited) attended those meetings on Apple's behalf. After those meetings, Dr. O'Reilly abruptly said "We [Apple] don't wish to receive any information about any of your IP [Intellectual Property]." Omni alleges that Apple then intentionally used Omni's patented technology in the Apple Watch.

51. Valencell also alleges that Apple "contacted Valencell regarding a partnership opportunity" and "expressed an interest in Valencell's heart sensor technology." Apple obtained information about Valencell's technology by downloading whitepapers using "fictitious names." According to Valencell, Apple then declined Valencell's offers to license its technology and proceeded to intentionally infringe its patents with the Apple Watch.

2. Apple's Efforts To Obtain Masimo Technology

52. In 2013, after Masimo launched iSpO$_2$, Apple contacted Masimo and asked to meet regarding a potential collaboration. Apple called Masimo's technology the "platinum" of noninvasive monitoring. Apple told Masimo it wanted to learn more from, and work with, Masimo to integrate Masimo technology into Apple products. Masimo met with Apple and, pursuant to an NDA, disclosed confidential information about Masimo's technology. Apple sought from Masimo confidential information about where Masimo saw the consumer healthcare market going in the near future.

53. Immediately after those meetings, and while telling Masimo it was interested in pursuing a partnership, Apple began hiring Masimo employees, including engineers and key management. With its enormous capital, Apple enticed Masimo employees to give Apple access to Masimo's intellectual property. Apple offered Masimo employees substantial financial incentives to entice them to help Apple in its strategic objective in healthcare, expecting them to use the specialized and confidential information they had learned from Masimo.

54. Apple first hired Masimo's Chief Medical Officer and Executive VP for Medical Affairs, Michael O'Reilly. As part of the Masimo executive team, Dr. O'Reilly was privy to extremely sensitive Masimo information. Dr. O'Reilly later informed Masimo that, although he viewed Masimo as his family, Apple had offered him so much money that he simply could not refuse. For years after leaving Masimo, Dr. O'Reilly falsely assured Masimo that Apple was not interested in pulse oximetry even though Apple would later release pulse oximetry in 2020.

55. Apple also contacted Marcelo Lamego, a former Masimo engineer and the Chief Technical Officer of Cercacor. Lamego had unfettered access to Masimo and Cercacor's highly confidential technical information. He was trained and mentored by Masimo's most skilled engineers and scientists, and was taught about the keys to effective non-invasive monitoring that others were not recognizing.

56. Unbeknownst to Masimo at the time, Lamego secretly wrote to Apple's CEO, Tim Cook at 1:00 am. Lamego told Cook that Apple needed him to solve the "deceptive part" of what Lamego called "the patient equation." Lamego explained to Cook that it was "easy to develop" medical products for most users, but "extremely more complex" to do so for all users. Referencing his "10 years" at Masimo and Cercacor, Lamego claimed he could solve the deceptive patient equation for Apple in exchange for a "senior technical executive position." By 10:30 a.m. that same morning, Apple's Director of Recruiting responded: "I saw your note to Tim Cook" and immediately referred Lamego to Apple's executive recruiting team. Apple then hired Lamego.

57. Lamego and Dr. O'Reilly promised Masimo that they would not work on any competitive products, much less use Masimo's intellectual property at Apple. Unbeknownst to Masimo at the time, however, Dr. O'Reilly and Lamego used and disclosed Masimo's confidential technology at Apple. For example, Lamego began pursuing on behalf of Apple patent applications

directed toward technologies he worked on at Masimo, and with which he had no prior experience or knowledge. Apple later applied for patents on those ideas and named Lamego as inventor. Apple requested the Patent Office refrain from publishing certain applications as would normally occur absent such a request.

58. Apple also systematically recruited numerous other Masimo employees. In total, Apple has hired more than twenty people who had worked for Masimo or Cercacor.

59. Apple announced the first version of its watch in September 2014, and began shipping its watch in April 2015. That first version of the Apple Watch later became known as the Apple Watch "Series 0." Since then, Apple has introduced several new versions or "series" of the Apple Watch. The Apple Watch Series 0 through 3 incorporated an optical "heart rate" sensor.[1]

60. Apple announced the Apple Watch Series 4 on September 12, 2018, and the Series 5 on September 10, 2019. The Apple Watch Series 4 and 5 included a redesigned optical sensor that purports to measure pulse rate. The Apple Watch Series 4 and 5 also added an ECG sensor that uses electrical signals to measure heart rate and generate an ECG waveform that Apple claims can detect certain heart conditions. Apple announced the Apple Watch Series 6 on September 15, 2020, the Apple Watch Series 7 on September 14, 2021, and the Apple Watch Series 8 on September 7, 2022. The Series 6, 7, and 8 added a "blood oxygen" sensor to non-invasively measure oxygen saturation. The Series 4-8, Ultra, and the Series SE, include technology that tracks Masimo's technologies to solve some of Apple's performance issues.

[1] Heart rate refers to the rate at which the heart beats or contracts. The Apple Watch optical sensor purports to measure the user's rate of arterial pulses, which is more accurately referred to as "pulse rate." Heart rate and pulse rate often, but do not always, correlate.

D. Apple's So-Called Efficient, But In Reality Predatory, Infringement

61. Apple has a well-known practice of so-called "Efficient Infringement." "Efficient Infringement" is the practice of infringing or misappropriating intellectual property, even after being informed of such improper conduct, because it is more advantageous to do so than pay to lawfully use or develop the intellectual property. Apple's former Director of Patent Licensing & Strategy, Boris Tecksler, observed that "'Efficient Infringement,' where the benefits outweigh the legal costs of defending against a suit, could almost be viewed as a 'fiduciary responsibility,' at least for cash-rich firms that can afford to litigate without end."

62. In reality, "efficient infringement" is anything but efficient and should be really viewed as "predatory infringement." As one commentator has observed, "by continuing to refer to this willful infringement of someone else's patent rights as 'efficient,' it evokes a sense of increased welfare and productive allocation of resources, neither of which are true. Predatory infringement provides a more accurate depiction of what is occurring. The infringer is making a choice that is his alone and for his sole benefit; the needs and rights of the prey, or patent owner, are irrelevant to the predator's calculus." Kristen Jakobsen Osenga, "Efficient" Infringement and Other Lies, 52 SHLR 1085, 1102 (2022).

63. As others have explained, a fundamental problem with efficient infringement is that it "undermines the proper functioning of the patent system. It frustrates the promise of the reward to the innovator for one's inventive labors. Once inventors know that the deck of (legal) cards is stacked against them and that they will suffer efficient infringement, they will create less patentable innovation. Without legal security in stable and effective property rights, venture capitalists will not invest in inventors or startups and the innovation economy will suffer." https://cip2.gmu.edu/2017/05/11/explaining-efficient-infringement/. There are many other

negative domino effects that arise from predatory infringement that fundamentally impact innovation and the human cause.

64. Predatory infringement allows large companies like Apple with relatively unlimited resources to enter a new field, identify the technology leader or leaders, and steal their technology and infringe their intellectual property, largely ignoring the legitimate rights of those technology inventors. The cost of endless litigation and any eventual damages award is of little or no consideration to a company like Apple with enormous resources, especially as legal developments restrict the remedies available to victims of predatory infringement. Each quarter that Apple sells products incorporating technology taken from others, Apple floods the market with vast amounts of products that inject consumers into the ecosystem of connected Apple products and services, with profits dwarfing anything Apple would ever have to pay if it is eventually found to infringe.

65. Apple's predatory infringement also discourages new potential competitors, and startups are discouraged from innovating, entering, or competing in the field because they understand Apple will easily crush them financially with endless litigation if they decide to stand up for themselves. Apple's predatory infringement is intended to discourage competitors, including small competitors, from challenging Apple. As one commentator observed, Apple refused to pay even a large company like Ericcson "a sum of money [Apple] could pay from loose change found down the back of Tim Cook's office sofa" because of a "desire to make it harder for Apple's smaller competitors to emerge." https://kidonip.com/standard-essential-patents/apples-well-funded-efficient-infringement-tilts-the-competitive-landscape/. As an example of Apple's retaliation against smaller competitors, AliveCor has alleged that Apple has engaged in a vexatious litigation campaign to stifle innovation and crush AliveCor, with no regard for the success of that

litigation and instead with the intent of raising AliveCor's costs in an effort to make AliveCor buckle under the weight of litigation expenses.

66. Apple's predatory infringement also harms, and risks harm, based on Apple's sometimes inapt integration of stolen technology into its products. Rather than lawfully acquire technology, Apple misappropriates technology from others, including by raiding other companies' employees. The result is a hodgepodge of stolen technologies that do not function as effectively as the complete technologies developed by the inventor of the technology. Through its predatory infringement, Apple floods the market with such imperfect technologies, which destroys the real potential of such technologies in the minds of consumers, particularly those who view Apple as a leading company that would presumably release the best possible technology. Such conduct effectively destroys the market for the better functioning technology or at a minimum, substantially damages competition in that market, because consumers assume that the best will come from Apple, and become no longer willing to consider, trust, and ultimately purchase such technologies from others. Apple's conduct damages markets and discourages consumers from purchasing technology leaders' competing products that employ far superior technology.

E. Apple's Leveraging Of Its Control Over iOS Applications

67. Apple also abuses its power through anticompetitive agreements. For example, Apple forces app developers to sign the Apple Developer Program License Agreement (the "Developer Agreement") to distribute apps to iOS users in the App Store.

68. Article 9.3 of the Developer Agreement is titled "Information Submitted to Apple Not Deemed Confidential" and provides: "Apple works with many application and software developers and some of their products may be similar to or compete with Your Applications. Apple may also be developing its own similar or competing applications and products or may

decide to do so in the future. […] Apple cannot agree, and expressly disclaims, any confidentiality obligations or use restrictions, express or implied, with respect to any information that You may provide in connection with this Agreement or the Program […]. Apple will be free to use and disclose any Licensee Disclosures on an unrestricted basis without notifying or compensating You."

69. Article 14.4 is entitled "Independent Development" and provides: "Nothing in this Agreement will impair Apple's right to develop, acquire, license, market, promote, or distribute products or technologies that perform the same or similar functions as, or otherwise compete with, Licensed Application, Covered Products, or any other products or technologies You may develop, produce, market, or distribute." The Developer Agreement thus gives Apple a license to use a competitor's confidential information.

70. Apple knows that it can force competitors to sign the Developer Agreement and then require them to share confidential information with Apple because Apple restricts operation of applications through its own app store. Thus, competitors cannot afford to refuse Apple's terms. To competitors, the only two choices are to agree to Apple's demands or forego access to all iOS users.

71. Masimo became one of the many victims of Apple's strategy. In May 2020, when the COVID-19 pandemic took over the world, Apple began to diminish Masimo's SafetyNet product. Masimo developed SafetyNet as a solution to hospital overcrowding. Masimo, at the request of hospitals, quickly adapted and released SafetyNet to monitor patients from their homes. This allowed hospitals to send the less critically ill COVID patients home, where they were monitored continuously, as if they were in the hospital, with the same Masimo SET technology the hospital has. A recent study from the Journal of the American Medical Association found

Patient SafetyNet reduces hospitalizations by 87%, deaths by 77%, and costs by over $11,0000 per patient compared to standard care.

72. Shortly after Masimo initially released Patient SafetyNet, however, Apple refused to allow Masimo to make important updates to the Patient SafetyNet for iOS users unless Masimo shared its confidential FDA communications and strategies. Accepting Apple's demands would have required Masimo to reveal extremely sensitive competitive information about Masimo's pulse oximetry products and expose Masimo's strategies developed over decades in interacting with the FDA, that Apple could then use to compete unfairly against Masimo. Indeed, at the time, Apple was widely rumored to be working on a pulse oximetry feature for the Apple Watch. Apple introduced that feature just a few months later in September 2020 with the Apple Watch Series 6. Apple thus leveraged its power over iOS app distribution in an attempt to obtain confidential information from Masimo.

73. In September 2022, Apple attempted to leverage its power to extract similar information from Cercacor. Apple rejected Cercacor's companion app to its Ember product by stating that Guideline 1.4.1 required Cercacor to: (a) "Provide documentation from the appropriate regulatory organization demonstrating regulatory clearance for the medical hardware used by your app," (b) "Provide documentation of a report or peer-reviewed study that demonstrates your app's use of medical hardware works as described," (c) "Restrict the salable storefronts you select in App Store Connect to the regions where you have obtained regulatory clearance for the medical hardware used by your app" and "Otherwise, you must provide a jurisdiction statement in your app description declaring where the medical hardware has regulatory clearance to be used," (d) "Update your app's description to include a disclaimer reminding users to seek a doctor's advice in addition to using this app and before making any medical decisions." When Cercacor explained

that Ember is not a medical device, Apple doubled down and demanded more information. Apple demanded Cercacor's confidential FDA communications and strategies. Apple then rejected the application for additional reasons.

74. Just last month, Apple attempted to leverage its power over iOS app distribution to limit the features of Masimo's W1 product. On November 30, 2022, Apple prevented Masimo from launching its "Masimo Health App" on the app store. As with Cercacor's Ember app, Apple rejected Masimo's Health App under the pretext of not meeting Apple's App Store Review Guideline 1.4.1 concerning Safety and Physical Harm. This guideline provides: "Medical apps that could provide inaccurate data or information, or that could be used for diagnosing or treating patients may be reviewed with greater scrutiny." But the Masimo Health App does not connect to a medical device and does not provide medical diagnoses to users. Nevertheless, Apple rejected the Masimo Health App to harm Masimo in the separate health watch market. Apple relied again on its guideline, citing that: "[i]f your medical app has received regulatory clearance, please submit a link to that documentation with your app." Apple's reliance on its guideline is a pretext. Google has already approved the full Masimo Health App for launch on its Play Store for Android devices, without claiming to need any FDA correspondence. And Apple does not have FDA clearance for its own pulse oximetry feature of the Apple Watch, yet Apple includes its own companion health app for iOS. Moreover, as discussed below, the Masimo W1 is far superior to the Apple Watch. The Masimo W1 catches 100% of desaturation events compared to the Apple Watch, which catches only 6% of desaturation events.

F. Apple's Fraudulent Conduct Before The USPTO

1. Apple's Fraudulent Conduct with Respect to Design Patents

75. Apple prosecuted, and now asserts against Masimo, U.S. Patent Nos. D883,279, D947,842, and D962,936 ("the Sensor Design Patents") and U.S. Patent No. D735,131 (the "D131 Patent") (collectively, the "Apple Design Patents"), even though Apple knows they were fraudulently procured. In prosecuting the Apple Design Patents, Apple concealed that the Apple Design Patents claimed designs that Apple knew were functional, non-ornamental, and not patentable subject matter, including as documented in earlier-filed utility patents. Apple also concealed the true inventors who conceived of the claimed designs. Apple's concealment of the earlier-filed utility patents and the true inventors was done with intent to deceive the USPTO, and but for these material misrepresentations, the USPTO would not have issued the Apple Design Patents.

76. On September 5, 2017, Apple filed provisional application 62/554,196 (the "'196 Application"). On March 19, 2018, Apple filed provisional application 62/644,886 (the "'886 Application"). On August 30, 2018, Apple filed U.S. Patent Application 16/118,282, (the "'282 Application") which published on March 7, 2019, as US2019/0072912 (the "'912 Publication"). The '912 Publication eventually issued as U.S. Patent No. 11,432,766 (the "'766 Patent"). The '766 Patent claims priority to the '196 Application and the '886 Application.

77. On November 16, 2018, Apple filed U.S. Patent Application 16/193,836 (the "'836 Application"), which published on April 4, 2019, as US2019/0101870, and issued as U.S. Patent No. 10,610,157 (the "'157 Patent"). On April 6, 2020, Apple filed a continuation of the '836 Application as U.S. Patent Application 16/841,543, which published on July 23, 2020, as US2020/0229761, and issued as U.S. Patent No. 10,987,054 (the "'054 Patent"). Both the '054

Patent and the '157 Patent claim priority to the '196 Application. Apple asserts the '157 Patent against Masimo.

78. On June 20, 2014, Apple filed U.S. Patent Application 14/310,694 (the "'694 Application"), which published on December 24, 2015, as US2015/0371768 (the "'768 Publication), and issued as U.S. Patent No. 9,460,846 (the "'846 Patent").

79. As described below, the '912 Publication and the '766, '054, and '157 Patents disclose designs that are substantially similar to designs later claimed in the Sensor Design Patents, and show the designs claimed in the Sensor Design Patents are functional and non-ornamental. The '694 Application and the '846 Patent disclose a design that is substantially similar to the design later claimed in the D131 Patent, and show the design claimed in the D131 Patent is functional and non-ornamental.

80. On June 27, 2018, Apple filed U.S. Patent Application 29/654,754 (the "'754 Application), which eventually issued as U.S. Patent No. D882,563 (the "D563 Patent").

81. Apple subsequently filed, as continuations that claim priority to the D563 Patent, U.S. Patent Applications 29/684,822 (March 25, 2019), 29/816,024 (November 18, 2021), and 29/816,025 (November 18, 2021), which issued as D883,279, D947,842, and D962,936, respectively (and which are collectively identified as the Sensor Design Patents).

82. On August 11, 2014, Apple filed U.S. Patent Application 29/498,998 (the "'998 Application), which eventually issued as the D131 Patent.

83. Jeffrey Myers and others at Apple selected the law firm Brownstein Hyatt Farber Schreck, LLP to prosecute the utility patent applications that resulted in the '912 Publication and eventual issuance of the '054 Patent and the '157 Patent, and selected the law firm Kilpatrick Townsend & Stockton LLP to prosecute the utility patent application that resulted in the eventual

issuance of the '846 Patent. Mr. Myers and others at Apple selected a different firm, Sterne, Kessler, Goldstein and Fox PLLC, to prosecute each of the design patent applications that resulted in the issuance of the Sensor Design Patents and the D131 Patent, in part to facilitate Apple's inequitable conduct. Mr. Myers and others at Apple compartmentalized information about these highly related patents and applications so that Sterne, Kessler, Goldstein and Fox PLLC would not disclose but-for material information as discussed below.

84. Apple identified the following individuals as inventors of D883,279, D947,842, and D962,936: Jody Akana, Molly Anderson, Bartley K. Andre, Shota Aoyagi, Anthony Michael Ashcroft, Marine C. Bataille, Jeremy Bataillou, Markus Diebel, M. Evans Hankey, Julian Hoenig, Richard P. Howarth, Joanathan P. Ive, Julian Jaede, Duncan Robert Kerr, Peter Russell-Clarke, Benjamin Andrew Shaffer, Mikael Silvanto, Sung-Ho Tan, Clement Tissandier, Eugene Antony Whang, and Rico Zorkendorfer (collectively the "Named Design Inventors").

85. Apple identified the following individuals as inventors of the D131 Patent: Jody Akana, Bartley K. Andre, Shota Aoyagi, Anthony Michael Ashcroft, Jeremy Bataillou, Daniel J. Coster, Daniele De Iuliis, M. Evans Hankey, Julian Hoenig, Richard P. Howarth, Jonathan P. Ive, Duncan Robert Kerr, Marc A. Newson, Matthew Dean Rohrbach, Peter Russell-Clarke, Benjamin Andrew Shaffer, Mikael Silvanto, Christopher J. Stringer, Eugene Antony Whang, and Rico Zörkendörfer (collectively the "Named D131 Inventors").

86. A design patent is "created for the purpose of ornamenting" and cannot be the result of or "merely a by-product" of functional or mechanical considerations. MPEP 1504.01(c) (9th Ed. 2018); 35 U.S.C. § 171. Design patents lacking ornamentality are rejected under 35 U.S.C. § 171 when the claimed feature(s) of the design application are primarily functional. *Id.* The examiner may use the specification of an analogous utility patent or the specification of a related

utility patent to establish a prima facie case that the claimed feature(s) is/are primarily functional. *Id.*

87. Mr. Myers, the Named Design Inventors, the Named D131 Inventors, and others at Apple involved in the prosecution of the Apple Design Patents had a duty to disclose information material to patentability to the USPTO during patent prosecution. Material information includes information that the claimed designs are functional, non-ornamental, or otherwise not patentable subject matter, as well as information regarding inventorship. As discussed below, Apple concealed (a) the functionality and non-ornamentality of the claimed designs, including at least one reference, and (b) that Apple had named the incorrect inventors and concealed the identity of the correct inventors.

a. Apple's Concealment Of Material References And The Functionality And Non-Ornamentality Of The Claimed Designs

88. Apple, through Mr. Myers and others involved in the prosecution of the Sensor Design Patents, withheld at least two references and additional information that was material to patentability during the prosecution of the Sensor Design Patents with intent to deceive the USPTO.

89. During prosecution of the Sensor Design Patents, Apple did not disclose the '282 Application, which Apple filed on August 30, 2018, or the '912 Publication, which published on March 7, 2019—even though the filing and publication were both before the filing dates of the respective Sensor Design Patents.

90. Mr. Myers and others at Apple had knowledge of the '282 Application and the '912 Publication prior to and during prosecution of the Sensor Design Patents.

91. Mr. Myers and other at Apple knew that the ’282 Application and the ’912 Publication disclosed that the designs claimed in the Sensor Design Patents were functional and non-ornamental.

92. Had Apple cited the ’282 Application or the ’912 Publication during prosecution of the Sensor Design Patents, the Sensor Design Patents would not have issued because the Examiner would have known the claimed designs are primarily functional.

93. The concealment of the ’282 Application and the ’912 Publication was but-for material to the issuance of the Sensor Design Patents because, had Apple disclosed the ’282 Application or the ’912 Publication to the Patent and Trademark Office (“Patent Office”), the disclosure would have established the claimed designs were primarily functional and non-ornamental, and the Examiner would not have allowed the claims. The Examiner would have rejected the claims as directed to ineligible non-statutory subject matter under 35 U.S.C. § 171.

94. Apple, through Mr. Myers and others involved in the prosecution of the D131 Patent, withheld at least one reference and additional information that was material to patentability during the prosecution of the D131 Patent with intent to deceive the USPTO.

95. During prosecution of the D131 Patent, Apple did not disclose the ’694 Application, which Apple filed on June 20, 2014—even though the filing was before the filing date of the D131 Patent.

96. Mr. Myers, the Named D131 Inventors, and others at Apple had knowledge of the ’694 Application prior to and during prosecution of the D131 Patent.

97. Mr. Myers and others at Apple knew that the ’694 Application disclosed that the design claimed in the D131 Patent was functional and non-ornamental.

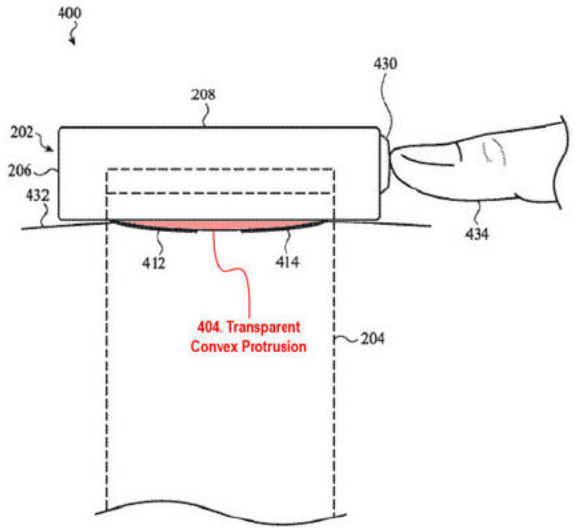
98. Had Apple cited the '694 Application during prosecution of the D131 Patent, the D131 Patent would not have issued because the Examiner would have known the claimed design is primarily functional.

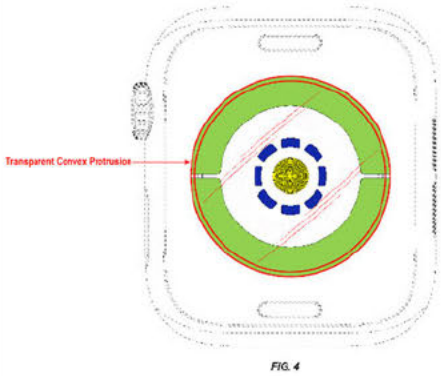
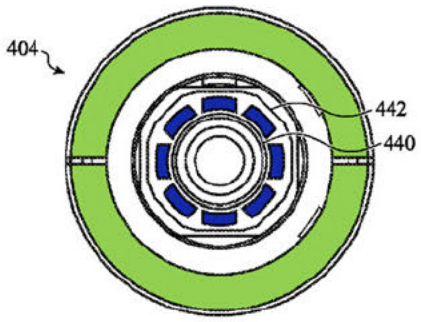
99. The concealment of the '694 Application was but-for material to the issuance of the D131 Patent because, had Apple disclosed the '694 Application to the Patent Office, the disclosure would have established the claimed designs were primarily functional and non-ornamental, and the Examiner would not have allowed the claims. The Examiner would have rejected the claims as directed to ineligible non-statutory subject matter under 35 U.S.C. § 171.

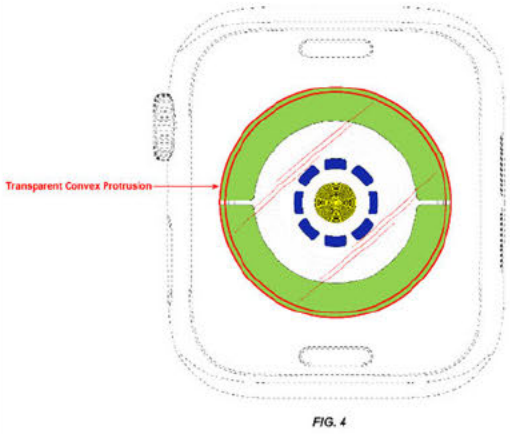
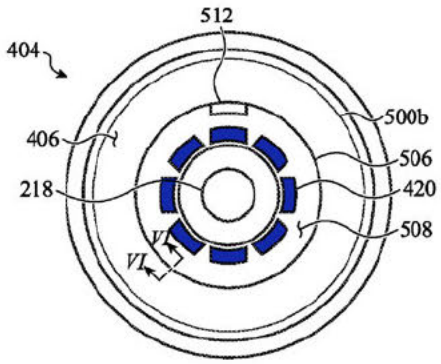
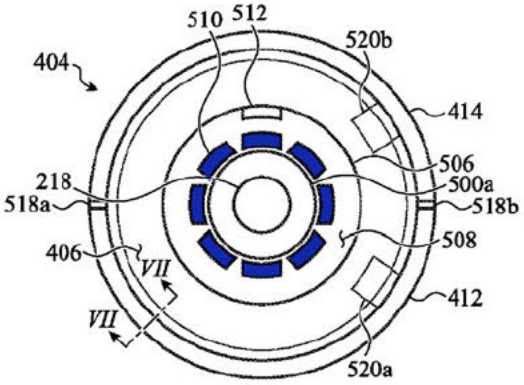
100. For example, one factor that demonstrates a claimed design is directed toward ineligible functional subject matter is existence of a concomitant utility application. The Patent Office instructs Patent Examiners that a "specification of an analogous utility patent" evidencing a claimed design lacks ornamentality can be cited as evidence supporting an Examiner's rejection.

101. On information and belief, the Named Design Inventors knew that the designs claimed in the Sensor Design Patents were functional and non-ornamental, the Named D131 Inventors knew that the design claimed in the D131 Patent was functional and non-ornamental, and, including as a result of their exposure to the development process, the Named Design Inventors and Named D131 Inventors also knew that the claimed designs had not been created for the purpose of ornamenting the article in which they are embodied.

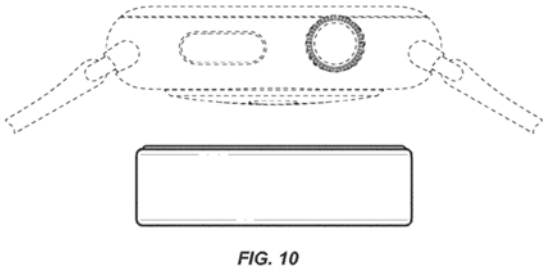
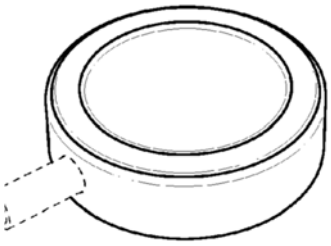
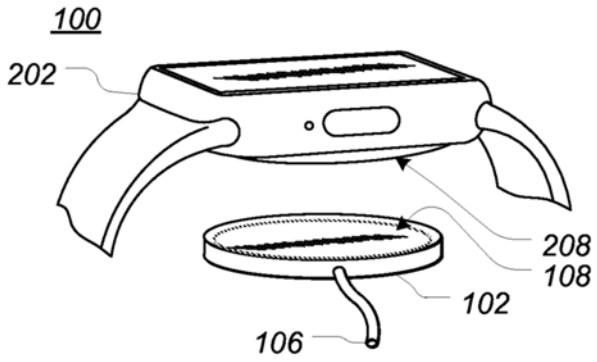
102. As shown below, the '912 Publication demonstrates the functionality of at least the convex protrusion, the arc-shaped ECG sensors, and the photodiodes claimed in the Sensor Design Patents.

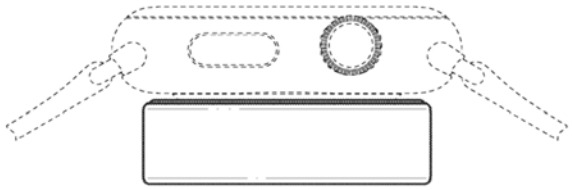
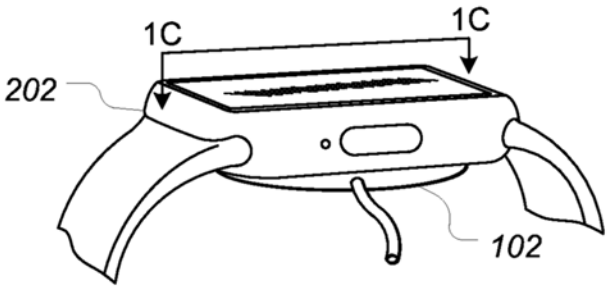
D883,279	Functional Disclosure in Withheld '912 Utility Application
 FIG. 8	Convex Protrusion "The carrier 404 may be dome-shaped or otherwise non-planar, as shown in FIGS. 4A-4C, such that the second surface 408 protrudes or extends away from a back member 402 of the watch 400. This is best illustrated in FIGS. 4B and 4C." '912 Publication at [0083]. Claim 11: "The electronic watch of claim 8, wherein: the carrier is attached to a read of the housing and protrudes from the housing." '157 Patent.  FIG. 4B

D883,279	Functional Disclosure in Withheld '912 Utility Application
 FIG. 4	Arc-Shaped Electrodes "The electrodes may be used to provide an ECG function for the device 100. For example, a 2-lead ECG function may be provided when a user of the device 100 contacts first and second electrodes that receive signals from the user." '912 Publication at [0044]. *See also* '766 Patent at 5:7-11 "[T]he first and second electrodes 412, 414 may be arc-shaped (e.g., semi-circle-shaped), and may be positioned around a central opening 418 and concentric ring of openings 420 formed in the masks 422." '912 Publication at [0086]. Claim 9: "The electronic watch of claim 8, wherein: the first electrode is arc-shaped and defines a first end and a second end; the second electrode is arc-shaped and defines a third end and a fourth end." '157 Patent.  ***FIG. 5E***

D883,279	Functional Disclosure in Withheld '912 Utility Application
 FIG. 4	Photodiodes [0096] "The optical sensor subsystem 416 may include a substrate 452 on which the set of one or more light emitters (e.g., LEDS) and the set of one or more light receivers (e.g., photodetectors, such as photodiodes) are attached." [0097] "The processing subsystem 444 may activate the light emitters and light receivers to perform a sensor function (e.g., to determine a heart rate)."  FIG. 5B  FIG. 5C

103. As shown below, the ’694 Application demonstrates the functionality of the design claimed in the D131 Patent.

D735131	**Functional Disclosure in Withheld ’694 Utility Application**
 FIG. 10  Portion of Fig. 9	 FIG. 1A
FIG. 10 is a perspective view thereof showing the charger in another environment in which it may be used;	[0016] FIG. 1A depicts a front perspective view of an example inductive power transfer system in an unmated configuration.
FIG. 9 is a perspective view thereof showing the charger in an environment in which it may be used;	[0047] FIG. 1A depicts a front perspective view of an example inductive power transfer system in an unmated configuration. The illustrated embodiment shows an inductive power transmitter dock that is configured to couple to and wirelessly pass power to an inductive power receiver accessory such as a portable electronic device or wearable accessory.

 FIG. 11	 FIG. 1B
FIG. 11 is a perspective view thereof showing the charger in another environment in which it may be used.	[0017] FIG. 1B depicts a front perspective view of an example inductive power transfer system in a mated configuration.
	[0054] As shown, the inductive power receiver **202** may include a lower surface **208** that may interface with, align or otherwise contact an interface surface **108** of the inductive power transmitter **102**. In this manner, the inductive power receiver **202** and the inductive power transmitter **102** may be positionable with respect to each other. In certain embodiments, the interface surface **108** may be configured in a particular shape that mates with a complementary shape of the inductive power receiver **202**, for example as shown in FIG. 1B. The interface surface **108** may include a concave shape that follows a selected curve. The bottom surface **208** of the inductive power receiver **202** may take a convex shape following the same or substantially similar curve as the interface surface **108**. In other examples, the interface surface **108** may be substantially flat.

104. Mr. Myers and the Named Design Inventors' knowledge that the claimed designs were directed toward ineligible subject matter is further evidenced by the public statements of

Apple's counsel and the statements of Apple employee Brian Land in an International Trade Commission ("ITC") hearing. *See In the Matter of Certain Light-Based Physiological Measurement Devices and Components Thereof* - Investigation No. 337-TA-1276.

105. For example, Apple's counsel represented that:

> Your Honor will hear that the shape, a dome shape of the watch, has been constant since the [Apple Watch] Series 0. And the reason for that domed, curved shape, there are multiple reasons, one of which has to do with charging. Your Honor may have seen that the Apple Watch can be placed in a charging cradle. The dome fits snugly in the cradle and is designed to align the watch with the charging hardware components so that the charging can occur in an efficient way. There was a very practical reason for that dome shape. Again, that was part of the original Apple Watch [since 2015].

Id. at 47:14-25.

106. As another example, Mr. Land testified:

> My understanding is the primary reason that it was dome-shaped was to provide a little extra space to fit the coils that were part of the wireless charging system. The Apple Watch charges wirelessly through a dock that has a complementary shape, and the dome-shape, when in combination with the charging cradle, in addition to providing additional space for the charging coils, it also provides a self-centering mechanism so that, when you place it on the cradle, it aligns itself well to the other -- the charger for efficient wireless charging.

Id. at 959:14-960:2.

107. Apple also filed and obtained U.S. Patent No. 10,702,211 ("the '211 patent"). The '211 patent describes the functionality of the sensor structure on the Apple watch and shows Apple believes the convex protruding back of the Apple watch provides key functionality. The '211 patent was filed on July 14, 2017, and issued July 7, 2020. The '211 patent was prosecuted by yet another firm selected by Apple and Mr. Myers – Kilpatrick Townsend and Stockton LLP. Mr. Myers was listed as an attorney of record during prosecution of the '211 patent. On information and belief, Mr. Myers had knowledge of this patent and chose not to cite the '211 patent during prosecution of the Sensor Design Patents to deceive the USPTO into issuing the Sensor Design

Patents. The ’211 patent explains in detail the purely functional nature of the Sensor Design Patents:

> referring to Fig. 2B, for first photosensor 210a to accurately sense the time variant blood within user’s kin 205 (e.g., skin) and/or underlying tissue, the user must have both the transmit and the receive windows in direct and intimate contact with their skin, preferably with enough force to push the window into their skin so that I displaces not only arterial blood 270, but also a substantial amount of lower-pressure venous blood 275.
>
> ’211 patent at 8:2-9.

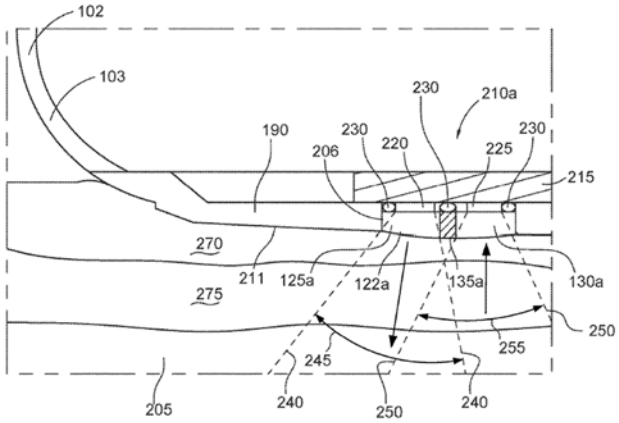


FIG. 2B

The ’211 patent further claims this protrusion structure:

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What is claimed is:

1. A portable electronic device comprising:

a housing having an opening extending from an interior surface of the housing to an exterior surface of the housing;

a photosensor window positioned within the opening, the photosensor window including:

a first transparent region that allows light from a photoemitter positioned within the housing to pass through the opening, and wherein the first transparent region forms a first portion of a perimeter of the photosensor window;

a second transparent region that allows light to pass through the opening and be received by a photodetector that is positioned within the housing, and wherein the second transparent region forms a second portion of the perimeter of the photosensor window; and

an opaque region positioned between and optically isolating the first transparent region from the second transparent region;

wherein the first transparent region, the second transparent region and the opaque region are arranged to form a convex surface that forms a portion of an exterior surface of the electronic device.

108. Masimo incorporates by reference its Initial Design Patent Invalidity Contentions served in this case. Those contentions supplement the allegations above and further demonstrate that the designs claimed in the Apple Design Patents are functional and non-ornamental.

109. On information and belief, Mr. Myers, the Named Design Inventors, the Named D131 Inventors, and others at Apple knew that the designs claimed in the Apple Design Patents were functional, non-ornamental, and resulted from development of functional aspects of the Apple Watch, including features present in original Apple Watch Series 0 in 2015.

110. The concealment of the ’282 Application and the ’912 Publication, the functional nature of the claimed designs, and the fact that the claimed designs resulted from the development of functional features of the Apple Watch was but-for material to the issuance of the Sensor Design Patents. Had Apple disclosed this information to the Patent Office, this information would have

established the claimed designs were primarily function and non-ornamental, and had not been created for the purpose of ornamenting the Apple Watch. As a result, the Examiner would have rejected the claims as directed to ineligible non-statutory subject matter under 35 U.S.C. § 171.

111. On information and belief, Mr. Myers, the Named Design Inventors, and others at Apple affirmatively concealed the '282 Application and the '912 Publication, misrepresented the functional nature of the claimed designs, and misrepresented the fact that the claimed designs resulted from the development of functional features of the Apple Watch. They did so because they knew that identifying this information to the USPTO would have resulted in the USPTO rejecting the claims and not issuing the patents. The single most reasonable inference from this conduct is that they intended to deceive the Patent Office into improperly allowing the Sensor Design Patents.

112. The concealment of the '694 Application, the functional nature of the claimed designs, and the fact that the claimed designs resulted from the development of functional features of the Apple Watch was but-for material to the issuance of the D131 Patent. Had Apple disclosed this information to the Patent Office, this information would have established the claimed design was primarily functional and non-ornamental and had not been created for the purpose of ornamenting the Apple Watch. As a result, the Examiner would have rejected the claim as directed to ineligible non-statutory subject matter under 35 U.S.C. § 171.

113. On information and belief, Mr. Myers, the Named D131 Inventors, and others at Apple affirmatively concealed the '694 Application, the '768 Publication, and the '846 Patent, misrepresented the functional nature of the claimed design, and misrepresented the fact that the claimed design resulted from the development of functional features of the Apple Watch. They did so because they knew that identifying this information to the USPTO would have resulted in

the USPTO rejecting the claim and not issuing the D131 Patent. The single most reasonable inference from this conduct is that they intended to deceive the Patent Office into improperly allowing the D131 Patent.

b. Apple's Misrepresentation Of Inventorship

114. Apple, through Mr. Myers, the Named Design Inventors, the Named D131 Inventors, and others at Apple affirmatively misrepresented who should be named as inventors and concealed the identity the inventors who should have been named as inventors of the Apple Design Patents with intent to deceive the USPTO.

115. The '912 Publication, as well as the '766, '054 and '157 Patents, all list the same individuals as inventors: Sameer Pandya, Adam T. Clavelle, Erik G. de Jong, Michael B. Wittenberg, Tobias J. Harrison-Noonan, Martin Melcher, Zhipeng Zhang, Steven C. Roach, and Steven P. Cardinali (the "Named Utility Inventors"). During prosecution of the Sensor Design Patents, Apple did not disclose that the Named Design Inventors did not invent the claimed subject matter and/or that one or more of the Named Utility Inventors should have been named as inventors.

116. The '912 Publication, as well as the '766, '054, '157 Patents disclose the functional and non-ornamental designs claimed in the Sensor Design Patents and do not name any of the Named Design Inventors. For example, Apple's '912 Publication, as well as the '766, '054, '157 Patents, disclose a housing having a surface and circular wall protruding from the surface, and a light permeable cover arranged above a portion of the housing and covering the detectors. They disclose "a carrier 404 [that] may have a first surface 406 that is interior to the watch body 202… and a second surface 408 that is exterior to the watch body 202." '912 Publication at [0083]. They further disclose that the "carrier 404 may be dome-shaped or otherwise non-planar … such that

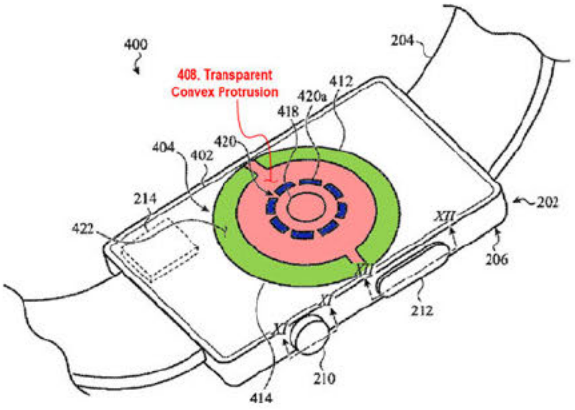
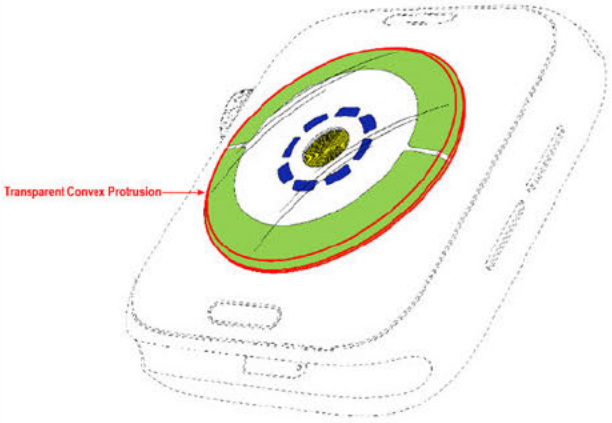
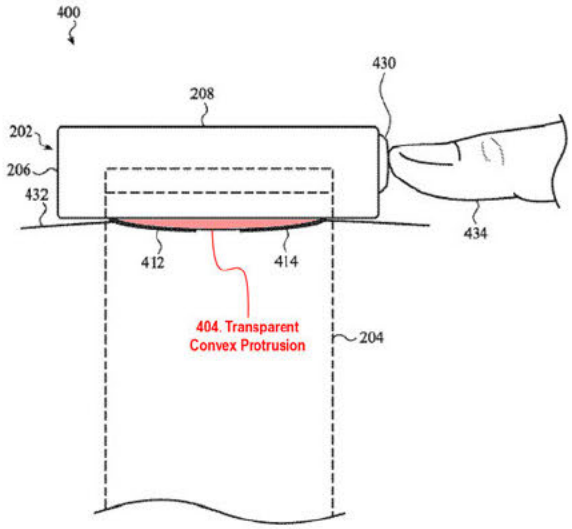
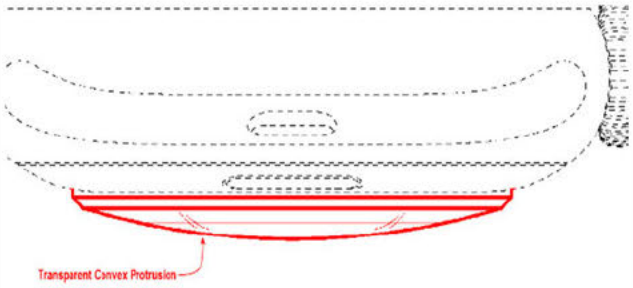
the second surface 408 protrudes or extends away from a back member 402 of the watch 400." *Id.* They disclose that the "carrier 404 may be transparent to all wavelengths of light or just some wavelengths (and even one wavelength) of light." *Id.* at [0084]; *see also* Figs. 4A-4C. They disclose that "the carrier is an optically transparent material having a dome shape." *Id.* at [0047]. Claim 8 states in part: "An electronic watch, comprising: … a carrier attached to a rear of the housing and formed from an optically transparent material…." *Id.* at Claim 8. They disclose that the optical components of the sensor system can include circular windows formed of crystal, glass, or plastic.

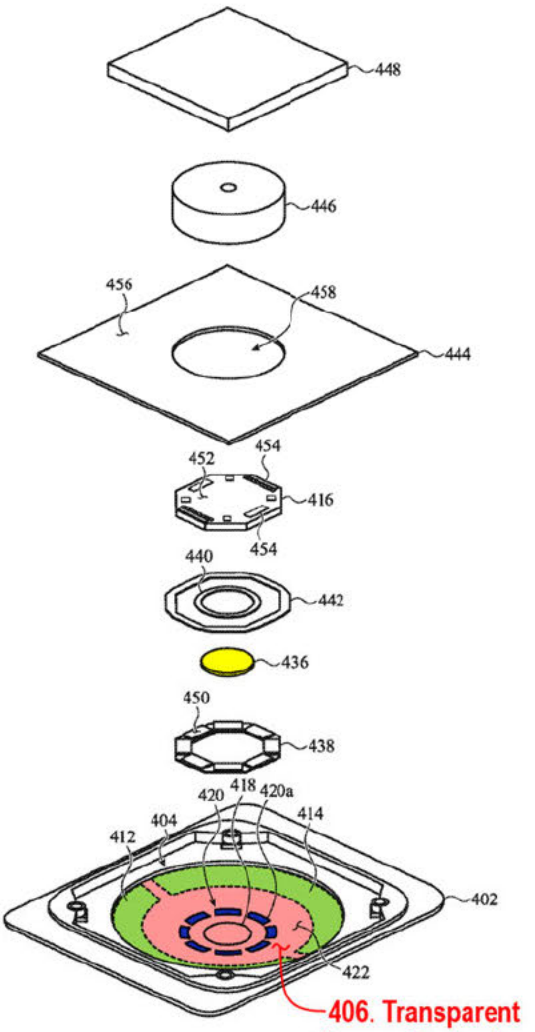
117. Apple's '912 Publication, as well as the '766, '054, '157 Patents, also disclose arc-shaped ECG electrodes, eight photodiodes, and a central Fresnel lens. For example, at least Figs. 4A, 4C, and 5E and the corresponding text of the '912 Publication, as well as the '766, '054, '157 Patents, disclose "an electronic watch that incorporates a set of electrodes." *Id.* at [0014]. They further disclose that the "first and second electrodes 412, 414 may be arc-shaped." *Id.* at [0086]. At least Figs. 4A, 4C, 5B, 5C, and 5E of the '912 Publication disclose eight photodiodes. Further, they disclose that "the lens 436 may be or include a Fresnel lens[.]" *Id.* at [0092]; Fig. 4C.

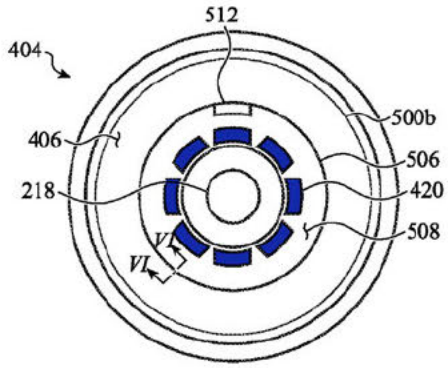
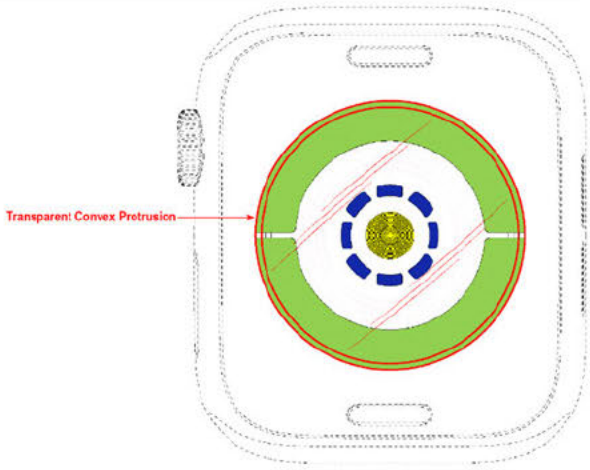
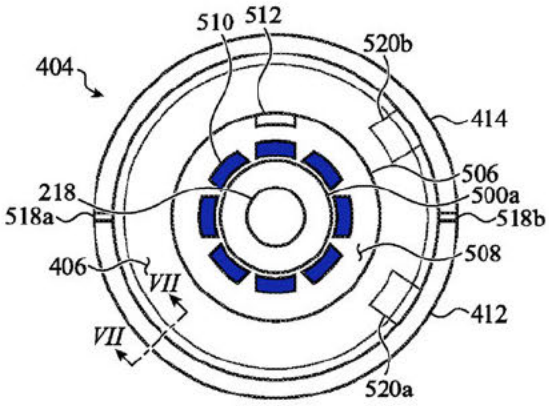
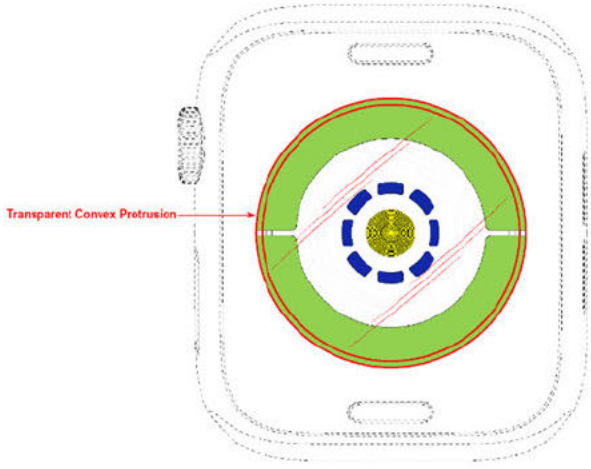
118. The Sensor Design Patents similarly claim one or more of a transparent or translucent convex surface, arc-shaped ECG electrodes, eight photodiodes, and a central Fresnel lens. The figures in D883,279 use oblique line shading on the convex surface. Pursuant to MPEP § 1503.02 (II), "oblique line shading must be used to show transparent, translucent and highly polished or reflective surfaces, such as a mirror."

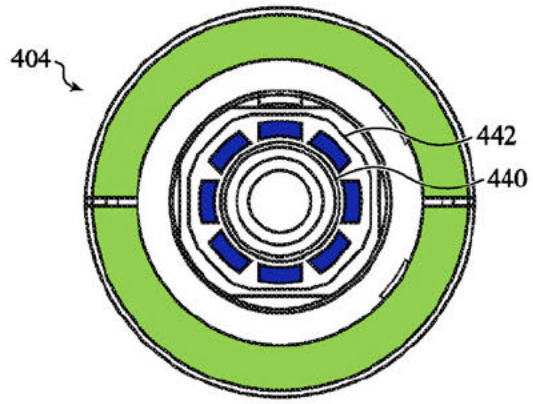
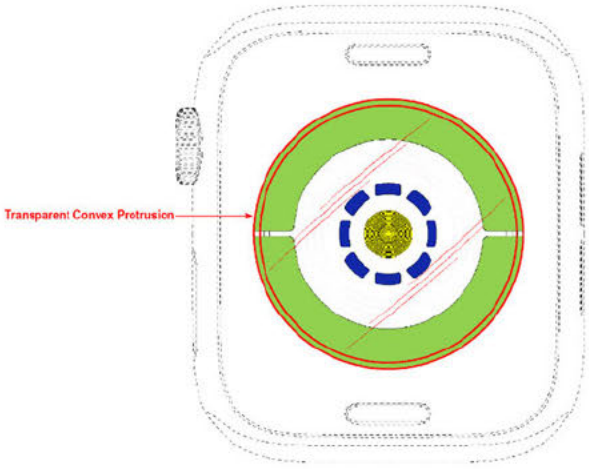
119. The three charts below compare the disclosures in Apple's '912 Publication, as well as the '766, '054, '157 Patents, to the claims of the Sensor Design Patents.

120. The chart for D883,279 is below.

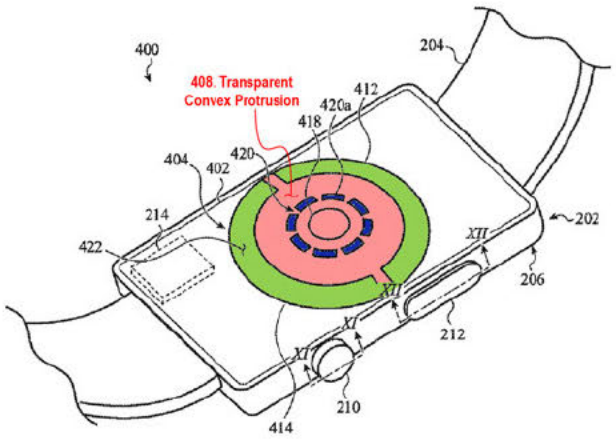
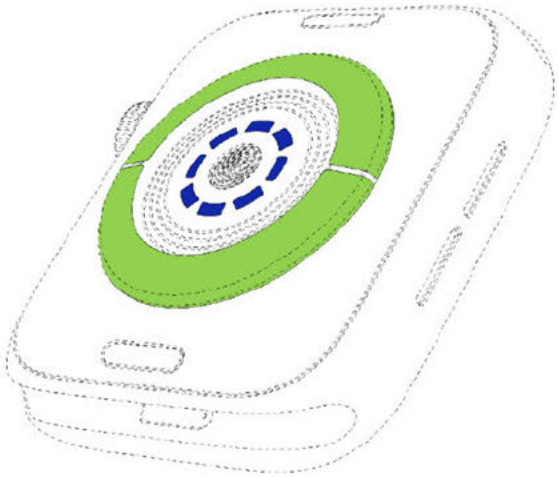
'912 Publication	D883,279
 FIG. 4A	 FIG. 2
 FIG. 4B	

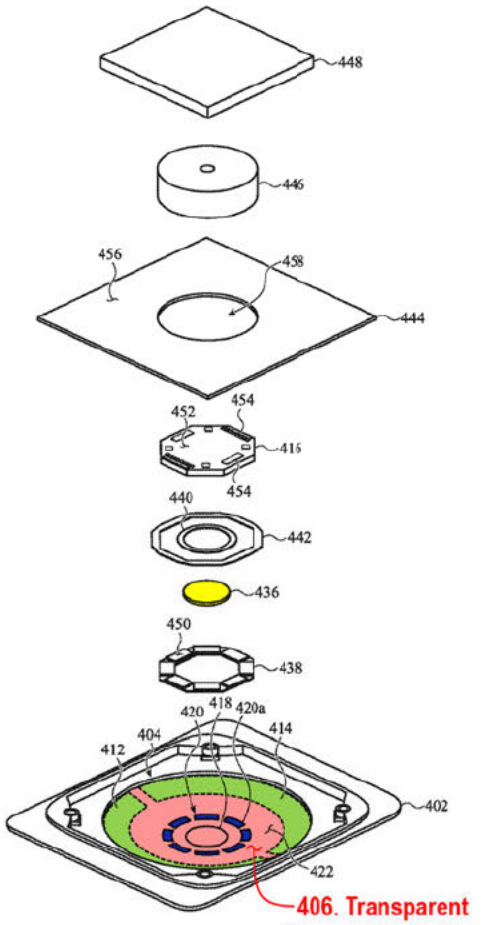
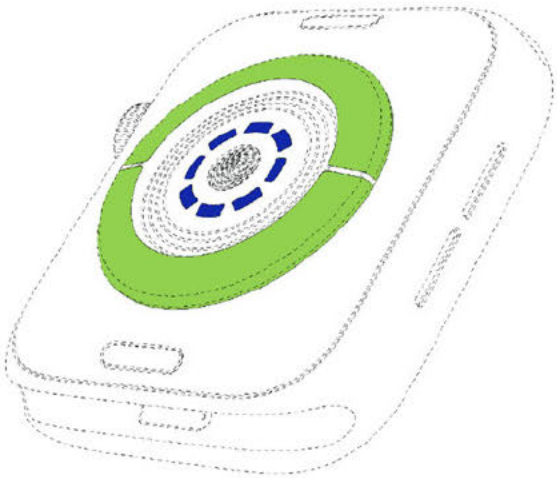
'912 Publication	D883,279
 *FIG. 4C*	

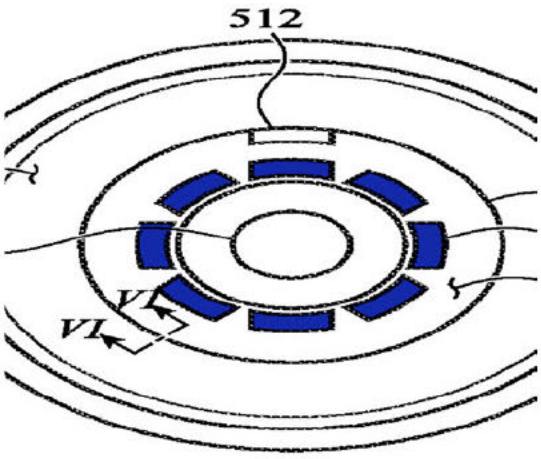
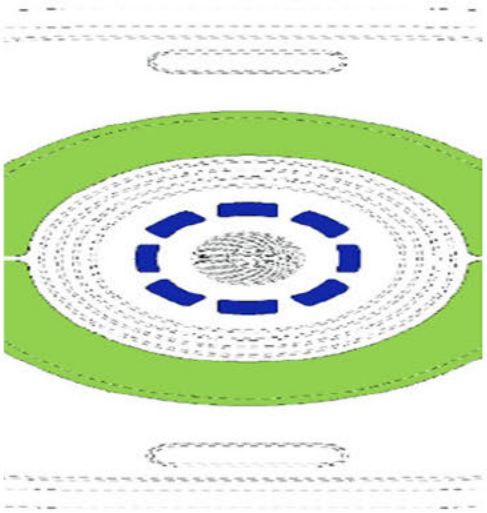
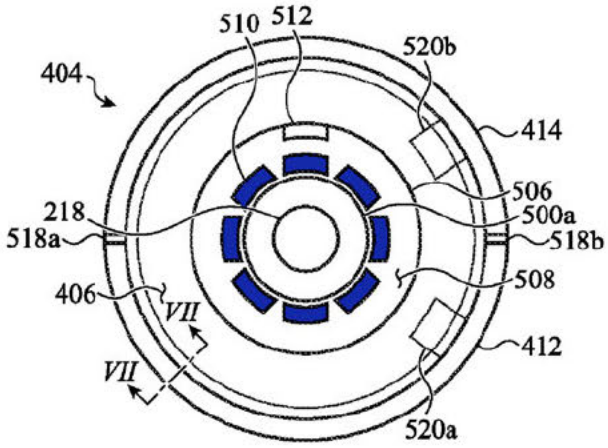
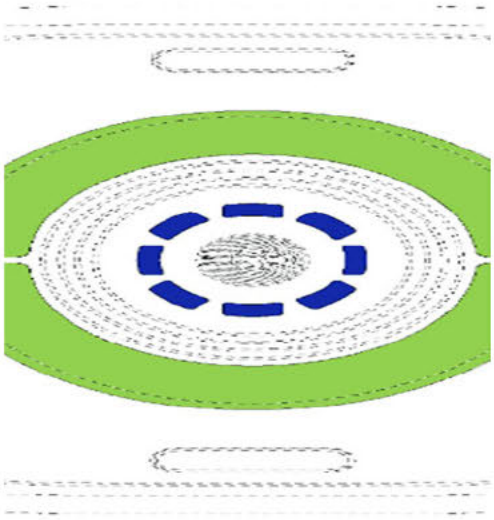
'912 Publication	D883,279
 *FIG. 5B*	 FIG. 4
 *FIG. 5C*	 FIG. 4

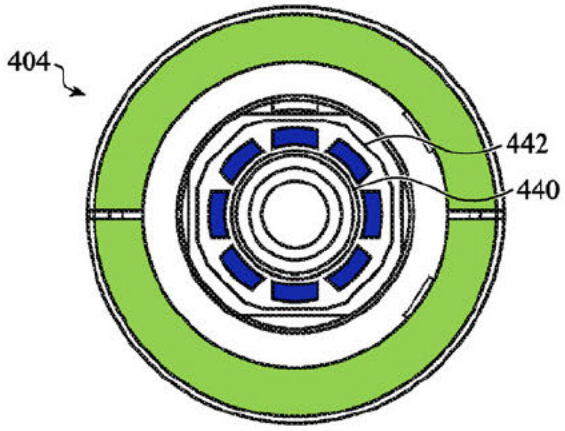
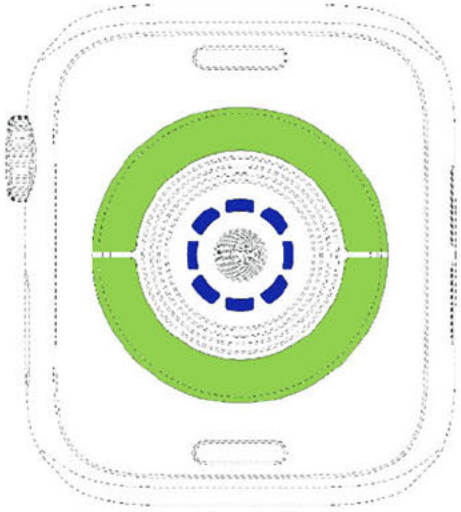
'912 Publication	D883,279
 FIG. 5E	 FIG. 4

121. The chart for D947,842 is below.

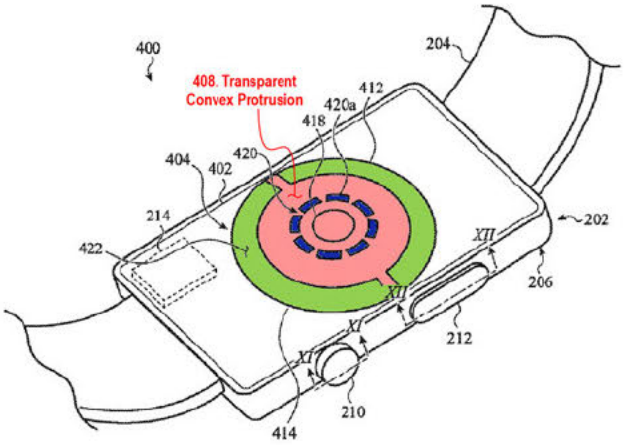
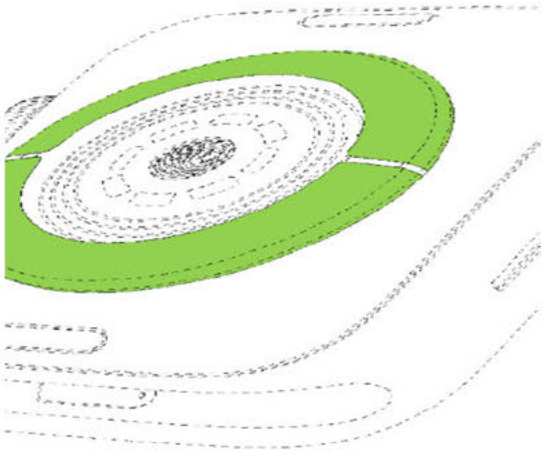
'912 Publication	D947,842
 FIG. 4A	 FIG. 2

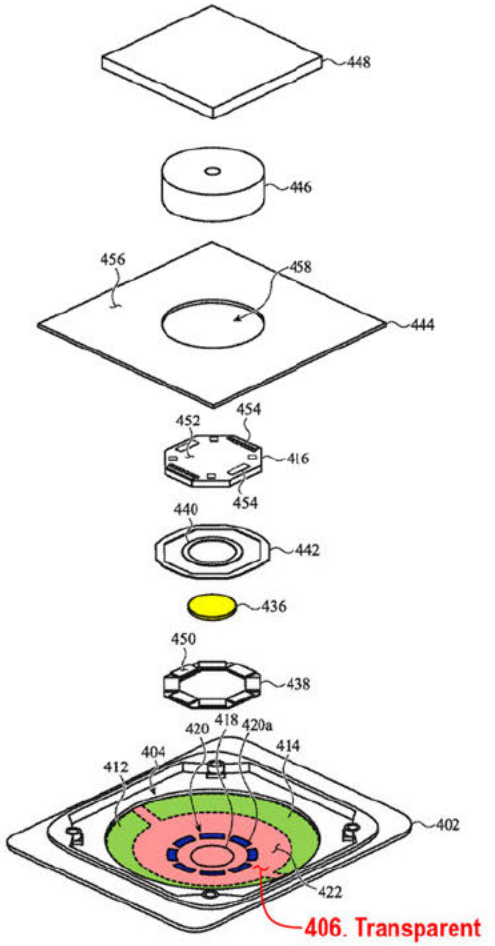
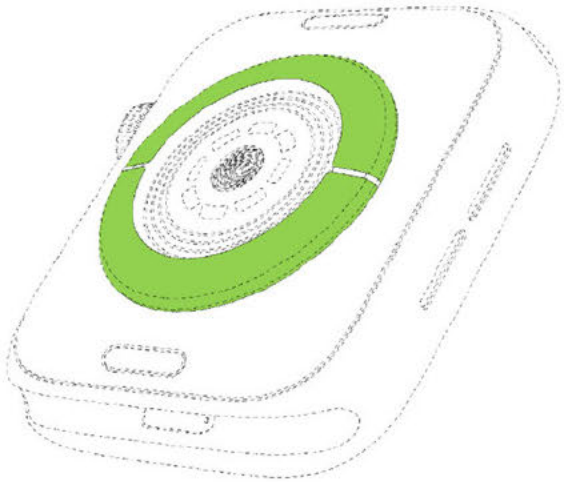
’912 Publication	D947,842
 *FIG. 4C*	 *FIG. 2*

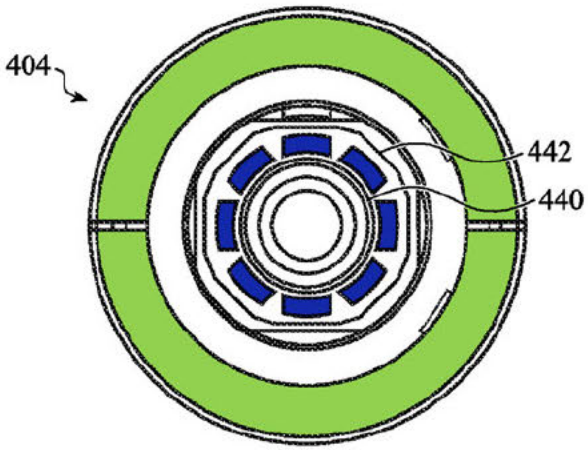
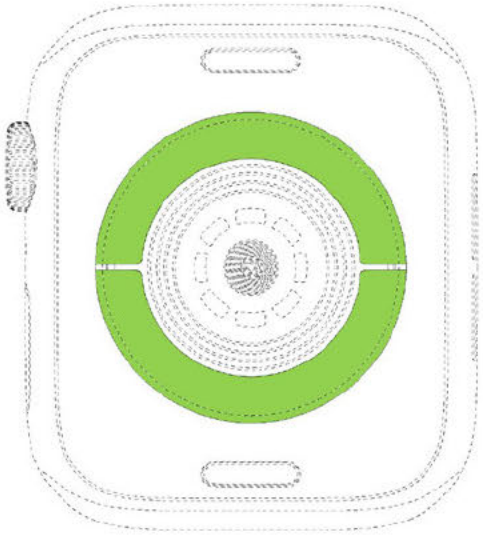
’912 Publication	D947,842
 FIG. 5B	 FIG. 4
 FIG. 5C	 FIG. 4

’912 Publication	D947,842
 FIG. 5E	 FIG. 4

122. The chart for D962,936 is below.

’912 Publication	D962,936
 FIG. 4A	 FIG. 2

'912 Publication	D962,936
 FIG. 4C	 FIG. 2

'912 Publication	D962,936
 *FIG. 5E*	 FIG. 4

123. As shown above, the Sensor Design Patents claim functional and non-ornamental designs created during development of the non-ornamental features disclosed and claimed in Apple's '912 Publication, as well as the '766, '054, '157 Patents. Any patent-eligible subject matter claimed in the Sensor Design Patents would have been conceived by the Named Utility Inventors. The Sensor Design Patents should have named as inventors the Named Utility Inventors.

124. Patent applications must include all inventors who contributed to the conception of the claimed invention, and only inventors who contributed to the conception of the claimed invention. A patent is invalid if it does not name all the inventors. See 35 U.S.C. §§ 101, 115, 116. Title 35 U.S.C. § 115 provides that "An application for patent … shall include, or be amended to include, the name of the inventor for any invention claimed in the application." Section 115 further states, "Except as otherwise provided in this section, each individual who is the inventor or a joint

inventor of a claimed invention in an application for patent shall execute an oath or declaration in connection with the application." The Manual of Patent Examining Procedure ("MPEP") thus instructs examiners to reject applications with improper inventorship. See MPEP § 2109 (explaining that U.S. patent law requires "naming of the actual inventor"). The MPEP explains that "if a determination is made that the inventive entity named in a U.S. application is not correct . . . a rejection should be made on this basis." *Id.*; *see also* MPEP § 2157.

125. Mr. Myers and the Named Design Inventors had a duty to disclose information material to patentability to the USPTO and breached that duty. Mr. Myers, the Named Design Inventors, and others at Apple knew that inventorship was incorrect. But for their misrepresentations regarding inventorship, suppressed evidence and withheld information, the PTO would not have allowed the claims. The identity of the true inventors was highly material to the issuance of the Sensor Design Patents. The Examiner also would have rejected the claims because the Sensor Design Patents would not have received priority to D882,563 and would therefore have been rejected as anticipated or obvious in view of intervening prior art, such as the '912 Publication. *See* 35 U.S.C. § 120.

126. On information and belief, Mr. Myers and the Named Design Inventors affirmatively misrepresented the correct inventorship to the USPTO because they knew that, if they identified the correct inventors, the applications would no longer have priority to the originally filed design patent and the USPTO would have known the claims were functional. The single most reasonable inference from Mr. Myers and the Named Design Inventors' deliberate concealment of their knowledge that inventorship of the Sensor Design Patents was incorrect is that they intended to mislead the USPTO into improperly allowing the Sensor Design Patents.

127. The effect of Apple's conduct is not limited to the Design Patents. All subsequent "child" or other related patents that are based on the same specification or relevant portions thereof, are tainted by Apple's inequitable conduct and, therefore, are also unenforceable under the doctrine of infectious unenforceability.

128. The '694 Application, the '768 Publication, and the '846 Patent list the following individuals as inventors: Christopher S. Graham, Eric S. Jol, and Makiko K. Brzezinski (the "Named '846 Inventors"). During prosecution of the D131 Patent, Apple did not disclose that the Named D131 Inventors did not invent the claimed subject matter and/or that one or more of the Named '846 Inventors should have been named as inventors.

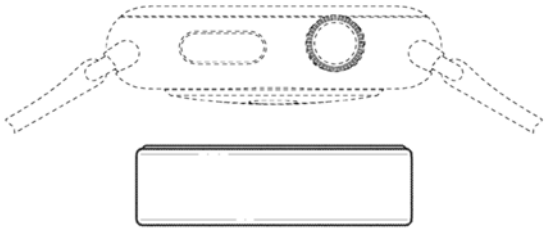
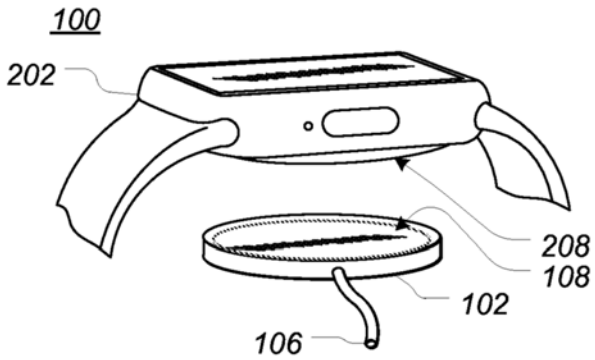
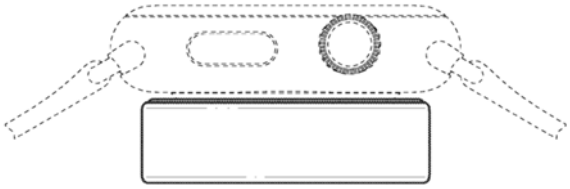
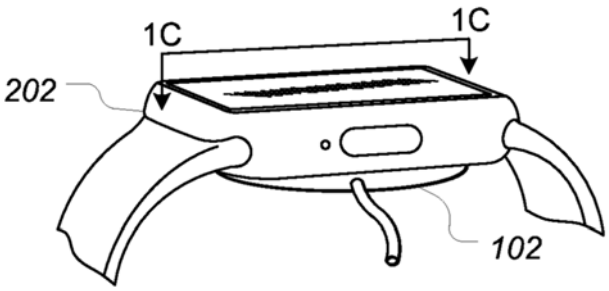
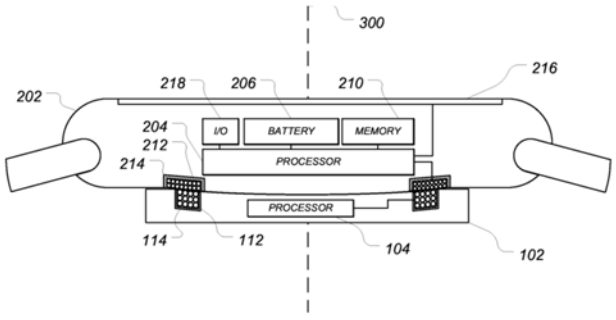
129. The '694 Application, as well as the '768 Publication and the '846 Patent, disclose the functional and non-ornamental designs claimed in the D131 Patent and do not name any of the Named D131 Inventors. The '694 Application discloses that the charger claimed in the D131 Patent is identified as the power transmitter in the '694 Application and the design is primarily functional in order to house the circular transmit coil and interface with the shape of the power receiver (the back of the Apple Watch).

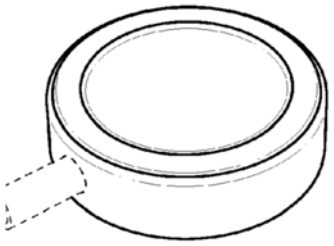
130. For example, the '694 Application discloses that "the system **100** may include an inductive power transmitter **102** and an inductive power receiver **202**" wherein "[t]he inductive power transmitter **102** and the inductive power receiver **202** may each respectively include a housing to enclose electronic components therein." '694 Application ¶ 52. It discloses that "Although the system **100** illustrated in FIG. 1A depicts a wristwatch, any electronic device may be suitable to receive inductive power from an inductive power transmitting dock." *Id.* ¶ 51. The '694 Application shows in figures 1A-1C that the design of the upper surface of the charger/power transmitter correspond to the design of the back of the Apple Watch because "the inductive power

receiver **202** may include a lower surface **208** that may interface with, align or otherwise contact an interface surface **108** of the inductive power transmitter **102**" and "the interface surface **108** may be configured in a particular shape that mates with a complementary shape of the inductive power receiver **202**, for example as shown in FIG. 1B." *Id.* ¶ 54. Specifically, "[t]he interface surface **108** may include a concave shape that follows a selected curve" while "[t]he bottom surface **208** of the inductive power receiver **202** may take a convex shape following the same or substantially similar curve as the interface surface **108**." *Id.* As illustrated, the bottom surface **208** of the inductive power receiver **202** contacts the interface surface of the inductive power transmitter **102**." *Id.* ¶ 56. The shapes correspond because misalignment may "substantially reduce power transfer efficiency" and it is preferred that "the inductive power transmitter 102 and the inductive power receiver 202 are aligned along a mutual axis 300, as shown in FIG. 1C." *Id.* ¶ 62.

131. The '694 Application further explains that "[t]he inductive power transmitter **102** may also include a transmit coil **112** having one or more windings." *Id.* ¶ 60. "FIG. 2A depicts a top perspective view of an example unshielded transmit coil **112** that may be included in the embodiments depicted in FIGS. 1A-1C." *Id.* ¶ 63. The shape of charger also corresponds to the shape of the transmit coil and the '694 Application explains that, "[i]n many examples, the windings may be provided in a substantially annular shape," and "[i]n many embodiments, the leads of the coil **112** may exit the coil on the same side." *Id.*

132. The referenced figures from the '694 Application are presented in the chart below with corresponding figures from the D131 Patent.

D735131	'694 Utility Application
 FIG. 10	 FIG. 1A
 FIG. 11	 FIG. 1B
	 FIG. 1C



Portion of Fig. 9

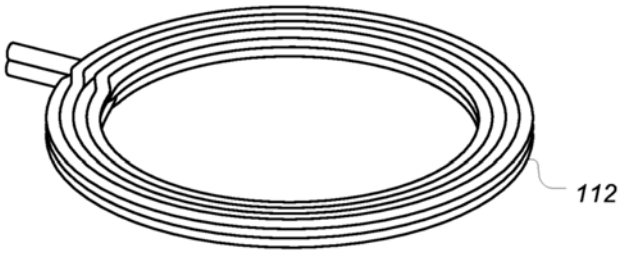


FIG. 2A

133. As shown above, the '694 Application discloses the functional and non-ornamental designs claimed in the D131 Patent and does not name any of the Named D131 Inventors. Any patent-eligible subject matter claimed in the D131 Patent would have been conceived by the Named '846 Inventors. The D131 Patent should have named as inventors the Named '846 Inventors.

134. Mr. Myers and the Named D131 Inventors had a duty to disclose information material to patentability to the USPTO and breached that duty. Mr. Myers, the Named D131 Inventors, and others at Apple knew that inventorship was incorrect. But for their misrepresentations regarding inventorship, suppressed evidence and withheld information, the PTO would not have allowed the claim. The identity of the true inventors was highly material to the issuance of the D131 Patent.

135. On information and belief, Mr. Myers and the Named D131 Inventors affirmatively misrepresented the correct inventorship to the USPTO because they knew that, if they identified the correct inventors, the USPTO would have known the claim was functional. The single most reasonable inference from Mr. Myers and the Named D131 Inventors' deliberate concealment of their knowledge that inventorship of the D131 Patent was incorrect is that they intended to mislead the USPTO into improperly allowing the D131 Patent.

136. The effect of Apple's conduct is not limited to the D131 Patent. All subsequent "child" or other related patents that are based on the same specification or relevant portions thereof, are tainted by Apple's inequitable conduct and, therefore, are also unenforceable under the doctrine of infectious unenforceability.

2. Apple's Fraudulent Conduct with Respect to Utility Patents

137. Apple prosecuted, and now asserts against Masimo, U.S. Patent Nos. 10,627,783 ('783 patent), 10,942,491 ('491 patent), and 11,474,483 ('483 patent) (collectively, the "Utility Patents") even though Apple knows they were fraudulently procured. Apple withheld from the PTO multiple prior art references it knew were material to patentability. Apple had deep knowledge of these references because it asserted them in multiple litigations against Masimo and other medical device companies. These actions constitute fraud through omission because they violated Apple's duty of candor to the PTO. Further, Apple falsely and fraudulently represented, despite knowing of the withheld references, that the claims of the Utility Patents were in condition for allowance. Apple directed its litigation counsel to assert certain references against Masimo in its IPRs and infringement lawsuits, while either withholding those references from its prosecution counsel or directing its prosecution counsel to withhold them. These actions were all done with an intent to deceive the PTO and to fraudulently obtain patents, knowing that the PTO would not issue these patents if the PTO were aware of the withheld references.

138. The following claim charts provide examples of how prior art references that Apple withheld from the PTO anticipate or at a minimum render obvious claims of the Utility Patents:

Claim 9 of Patent No. 10,627,783	Disclosure in Withheld References
A wearable electronic device, comprising:	

Claim 9 of Patent No. 10,627,783	Disclosure in Withheld References
a housing comprising a bottom portion defining an opening;	WO2005092182 ("Kotanagi") provides: "(0045) This biological information measuring device 1 includes a housing (main body) 2 internally equipped with various electrical parts and electronic parts. . . . (0048) The housing 2 described above is made of plastic or a metal material such as aluminum . . . . " JP Pub. No. 2005-270543 ("Tanagi") provides: "(0043) The biological information measuring device 1 is provided with a housing (main body) 2 containing various electric components and electronic components. . . (0046) The housing 2 is composed of plastic or a metal material such as aluminum."
a biosensor module aligned with the opening;	WO2005092182 ("Kotanagi") provides: "(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0009) In particular, when the main body is worn on a wrist using the fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . Furthermore, since the adhesion of the biological sensor part is improved, the light emitting part and the light receiving part are capable of efficiently irradiating and receiving light. . . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22."
a wireless charging receive coil positioned within the housing and aligned with the opening; a battery operably coupled to the	WO2005092182 ("Kotanagi") provides: "(0053) Further, an external connection terminal (recharging means) 21 for recharging the rechargeable battery 13 by supplying power from an external device such as a recharger is provided on the side surface of the housing 2. . . . In addition, rather than the external

Claim 9 of Patent No. 10,627,783	Disclosure in Withheld References
wireless charging receive coil; and	connection terminal 21, a transformer or the like for supplying power to a recharger and to the inside of the housing 2 may be provided so as to recharge the rechargeable battery 13 in a contactless state." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0051) Moreover, an external connection terminal (charging means) 21 for supplying power from outside of the charger or the like to the rechargeable battery 13 and charging it is provided on the side surface of the housing 2. . . Furthermore, it may be configured so that a transformer or the like for supplying power is provided not only to the external connection terminal 21, but also to the charger and inside the housing 2, respectively, and charging of the rechargeable battery 13 is performed in a non-contact state."
a cover disposed over the biosensor module; wherein: the cover is configured to pass optical signals to and from the biosensor module; and	WO2005092182 ("Kotanagi") provides: "(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0009) In particular, when the main body is worn on a wrist using the fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22."
the cover is configured to pass wireless power to the wireless charging receive coil.	WO2005092182 ("Kotanagi") provides: "(0053) . . . In addition, rather than the external connection terminal 21, a transformer or the like for supplying power to a recharger and to the inside of the housing 2 may be provided so as to recharge the rechargeable battery 13 in a contactless state."

Claim 9 of Patent No. 10,627,783	Disclosure in Withheld References
	JP Pub. No. 2005-270543 ("Tanagi") provides: "(0051) Moreover, an external connection terminal (charging means) 21 for supplying power from outside of the charger or the like to the rechargeable battery 13 and charging it is provided on the side surface of the housing 2. . . Furthermore, it may be configured so that a transformer or the like for supplying power is provided not only to the external connection terminal 21, but also to the charger and inside the housing 2, respectively, and charging of the rechargeable battery 13 is performed in a non-contact state."

Claim 7 of U.S. Patent No. 10,942,491	Disclosure in Kotanagi/Tanagi
A wearable electronic device comprising:	
a housing formed from a conductive material and defining a first opening opposite to a second opening;	WO2005092182 ("Kotanagi") provides: "(0045) This biological information measuring device 1 includes a housing (main body) 2 internally equipped with various electrical parts and electronic parts. . . .(0048) The housing 2 described above is made of plastic or a metal material such as aluminum . . . ." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0043) The biological information measuring device 1 is provided with a housing (main body) 2 containing various electric components and electronic components. . . (0046) The housing 2 is composed of plastic or a metal material such as aluminum."
a band attached to the housing and configured to secure the wearable electronic device to a user;	WO2005092182 ("Kotanagi") provides: "(0060) The fixing means 3 has a first band 30 and a second band 31 having base end sides that are attached to the housing 2 to enable mounting to the wrist A. The first band 30 and the second band 31 are provided opposite one another so as to sandwich the housing 2 in the longitudinal direction of the housing 2. In addition, both bands 30 and 31 are made of an expandable elastic material." JP Pub. No. 2005-270543 ("Tanagi") provides: "The fixing means 3 has a first band 30 and the second band 31 which are attached to the housing 2 by the base end sides and may be worn on the wrist A. The first band 30 and the second band 31 are provided in the longitudinal direction of the housing 2 so as to interpose and face the housing 2. Furthermore, both bands 30 and 31 are formed of a stretchable elastic material."
a display positioned in the first opening;	WO2005092182 ("Kotanagi") provides: "(0048) . . . A cover glass 10 with a substantially square shape is fitted into the central portion of the upper surface 2b of the housing 2, and a display part 11 for displaying the aforementioned pulse rate that is detected and various other information is disposed inside the cover glass 10." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0046) A substantially square-shaped cover glass 10 is fitted to a center portion of an upper surface 2b of the housing 2, and a display part 11 for displaying the sensed pulse rate and various other information is disposed on an inner side of the cover glass 10."
a cover comprising a non-conductive material and positioned over the second opening, the cover forming	WO2005092182 ("Kotanagi") provides: "(0046) A biological sensor part 8, which includes an LED (Light Emitting Diode) (light-emitting part) 5 for emitting light toward the living body while in contact with the living body surface B side, a PD

Claim 7 of U.S. Patent No. 10,942,491	Disclosure in Kotanagi/Tanagi
a portion of an exterior surface of the wearable electronic device;	(Photodetector) (light-receiving part) 6 for receiving reflected light from the living body out of the light emitted by the LED 5 and generating a pulse signal (biological information signal) corresponding to the amount of received light, and a contact detection means 7 for detecting whether the LED 5 and the PD 6 are in contact with the living body surface B, is disposed on the lower surface 4a of the protruding part 4 . . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0044) A biological sensor part 8 is disposed on a lower surface 4a of the projection part 4, and has an LED (light emitting part) 5 for irradiating light directed to a biological body when in a state contacting the biological body surface B side, a PD (photodetector) (light receiving part) 6 for receiving reflected light from the biological body from among light irradiated by the LED 5 and generating a pulse signal (biological information signal) corresponding to the received light quantity, and contact sensing means 7 for sensing whether the LED 5 and the PD 6 are contacting the biological body surface B. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22."
a biosensor module positioned below the cover configured to pass an optical signal through a window defined within the non-conductive material of the cover; and	WO2005092182 ("Kotanagi") provides: "(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22. JP Pub. No. 2005-270543 ("Tanagi") provides: "(0009) In particular, when the main body is worn on a wrist using the

Claim 7 of U.S. Patent No. 10,942,491	Disclosure in Kotanagi/Tanagi
	fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22."
a wireless charging receive coil aligned with the second opening and below the cover, the wireless charging receive coil configured to inductively couple to an external wireless charging device through the non-conductive material of the cover.	WO2005092182 ("Kotanagi") provides: "(0053) Further, an external connection terminal (recharging means) 21 for recharging the rechargeable battery 13 by supplying power from an external device such as a recharger is provided on the side surface of the housing 2. . . . In addition, rather than the external connection terminal 21, a transformer or the like for supplying power to a recharger and to the inside of the housing 2 may be provided so as to recharge the rechargeable battery 13 in a contactless state." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0051) Moreover, an external connection terminal (charging means) 21 for supplying power from outside of the charger or the like to the rechargeable battery 13 and charging it is provided on the side surface of the housing 2. . . Furthermore, it may be configured so that a transformer or the like for supplying power is provided not only to the external connection terminal 21, but also to the charger and inside the housing 2, respectively, and charging of the rechargeable battery 13 is performed in a non-contact state."

Claim 1 of U.S. Patent No. 11,474,483	Disclosure in Withheld References
A wearable electronic device comprising:	
a housing defining a first opening and a second opening;	WO2005092182 ("Kotanagi") provides: "(0045) This biological information measuring device 1 includes a housing (main body) 2 internally equipped with various electrical parts and electronic parts. . . ." (0048) The housing 2 described above is made of plastic or a metal material such as aluminum . . . ." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0043) The biological information measuring device 1 is provided with a housing (main body) 2 containing various electric components and electronic components. . . (0046) The housing 2 is composed of plastic or a metal material such as aluminum."
a display positioned at least partially within the first opening;	WO2005092182 ("Kotanagi") provides: "(0048) . . . A cover glass 10 with a substantially square shape is fitted into the central portion of the upper surface 2b of the housing 2, and a display part 11 for displaying the aforementioned pulse rate that is detected and various other information is disposed inside the cover glass 10." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0046) A substantially square-shaped cover glass 10 is fitted to a center portion of an upper surface 2b of the housing 2, and a display part 11 for displaying the sensed pulse rate and various other information is disposed on an inner side of the cover glass 10."
a front cover positioned over the display and defining at least a portion of a front exterior surface of the wearable electronic device;	WO2005092182 ("Kotanagi") provides: "(0048) The housing 2 described above is made of plastic or a metal material such as aluminum . . . . A cover glass 10 with a substantially square shape is fitted into the central portion of the upper surface 2b of the housing 2, and a display part 11 for displaying the aforementioned pulse rate that is detected and various other information is disposed inside the cover glass 10." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0046) The housing 2 is composed of plastic or a metal material such as aluminum. . . A substantially square-shaped cover glass 10 is fitted to a center portion of an upper surface 2b of the housing 2, and a display part 11 for displaying the sensed pulse rate and various other information is disposed on an inner side of the cover glass 10."
a biosensor module comprising:	WO2005092182 ("Kotanagi") provides: "(0046) A biological sensor part 8, which includes an LED (Light Emitting Diode)

Claim 1 of U.S. Patent No. 11,474,483	Disclosure in Withheld References
	(light-emitting part) 5 for emitting light toward the living body while in contact with the living body surface B side, a PD (Photodetector) (light-receiving part) 6 for receiving reflected light from the living body out of the light emitted by the LED 5 and generating a pulse signal (biological information signal) corresponding to the amount of received light, and a contact detection means 7 for detecting whether the LED 5 and the PD 6 are in contact with the living body surface B, is disposed on the lower surface 4a of the protruding part 4. . . (0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0044) A biological sensor part 8 is disposed on a lower surface 4a of the projection part 4, and has an LED (light emitting part) 5 for irradiating light directed to a biological body when in a state contacting the biological body surface B side, a PD (photodetector) (light receiving part) 6 for receiving reflected light from the biological body from among light irradiated by the LED 5 and generating a pulse signal (biological information signal) corresponding to the received light quantity, and contact sensing means 7 for sensing whether the LED 5 and the PD 6 are contacting the biological body surface B. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22."
a rear cover positioned at least partially within the second opening and defining an optically transparent window and a protruding convex surface;	WO2005092182 ("Kotanagi") provides: "(0009) In particular, when the main body is mounted to the wrist by the fixing means, the protruding part protrudes from the lower surface of the main body, which facilitates contact between the living body surface and the lower surface of the protruding part. . . . Moreover, since the adherence of the biological sensor part is enhanced, the light emitting part and the light-receiving part can emit and receive light efficiently. . . .(0055) In addition, as illustrated in FIG. 7, a through-hole 22 passing through the outside and the inside of the housing 2 is formed in the center of the lower surface 4a of the protruding part 4, and a cover glass 23 is fixed to the housing 2 so as to block the through-hole 22. . . ."

Claim 1 of U.S. Patent No. 11,474,483	Disclosure in Withheld References
	JP Pub. No. 2005-270543 ("Tanagi") provides: "(0009) In particular, when the main body is worn on a wrist using the fixing means, since the projection part projects from the lower surface of the main body, a state is formed wherein the biological body surface and the lower surface of the projection part are easily brought into contact. . . (0053) Furthermore, a through hole 22 penetrating the outside, and the inside of the housing 2, is formed at the center of the lower surface 4a of the projection part 4 as illustrated in FIG. 7, and the cover glass 23 is fixed to the housing 2 so as to block the through hole 22."
an optical sensor aligned with the optically transparent window;	WO2005092182 ("Kotanagi") provides: "(0046) A biological sensor part 8, which includes an LED (Light Emitting Diode) (light-emitting part) 5 for emitting light toward the living body while in contact with the living body surface B side, a PD (Photodetector) (light-receiving part) 6 for receiving reflected light from the living body out of the light emitted by the LED 5 and generating a pulse signal (biological information signal) corresponding to the amount of received light, and a contact detection means 7 for detecting whether the LED 5 and the PD 6 are in contact with the living body surface B, is disposed on the lower surface 4a of the protruding part 4." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0044) A biological sensor part 8 is disposed on a lower surface 4a of the projection part 4, and has an LED (light emitting part) 5 for irradiating light directed to a biological body when in a state contacting the biological body surface B side, a PD (photodetector) (light receiving part) 6 for receiving reflected light from the biological body from among light irradiated by the LED 5 and generating a pulse signal (biological information signal) corresponding to the received light quantity, and contact sensing means 7 for sensing whether the LED 5 and the PD 6 are contacting the biological body surface B.
a first electrode positioned along a rear surface of the wearable electronic device; and a second electrode positioned along the rear surface of the wearable electronic device; and	WO2005092182 ("Kotanagi") provides: "(0058) The contact detection means 7 has a pair of electrodes 7a and 7b, and the pair of electrodes 7a and 7b are disposed on the lower surface 4a of the protruding part 4 so as to sandwich the LED 5 and the PD 6. . . . In addition, the pair of electrodes 7a and 7b are provided so that the tips thereof protrude slightly more than lower surface 4a of the protruding part 4 and are provided so that the base end sides are electrically connected to the sub-board 15. . . (0059) The pair of electrodes 7a and 7b have a function of detecting whether there is contact with the living

Claim 1 of U.S. Patent No. 11,474,483	Disclosure in Withheld References
	body surface B based on the potential difference between the electrodes. . . ." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0056) The contact sensing means 7 has a pair of electrodes 7a and 7b, and the pair of electrodes 7a and 7b is disposed on the lower surface 4a of the projection part 4 in a state interposing between the LED 5 and the PD 6. That is, the pair of electrodes 7a and 7b, the LED 5, and the PD 6 are disposed so as to be aligned in a row in a direction orthogonal to the longitudinal direction of the housing 2. Furthermore, the pair of electrodes 7a and 7b is provided so that the tips thereof slightly project from the lower surface 4a of the projection part 4, and the base end sides are electrically connected to the sub-substrate 15."
a third electrode positioned along a side of the wearable electronic device, wherein:	PCT Publication No. 2012/140559 ("Shmueli") provides: "As shown in Figs. 1A and 1B, the heart monitoring device 10 is preferably equipped with two types of sensing devices: and oximetry (SpO2) measuring unit and an ECG measuring unit. The oximetry measuring unit preferably includes an oximetry sensor 13 mounted in the back side of the monitoring unit 11 and facing the skin of the subject. The ECG measuring unit preferably includes at least three areas 14, each providing electrical contact with the subject. As shown in Figs. IA and 1B, at least one of the electrical contacts 14 designated by the numeral 15 is mounted in the back side of the monitoring unit 11 and facing the skin of the subject, and at least two electrical contacts 14 designated by the numeral 16 are mounted on the front side of the monitoring unit 11. . . As shown in Fig. 3, the heart monitoring device 10 is preferably warren on the wrist of the first hand of the subject. The oximetry sensor 13 (not shown) preferably faces the front side of the hand. One electrical contact (not shown) mounted on the back side of the heart monitoring device 10 touches the skin of the subject at the wrist, and two of the fingers of the second hand of the subject touch the two electrical contacts 14 on the front side of the heart monitoring device 10."
the wearable electronic device is configured to measure a first physiological parameter of a wearer using the optical sensor; and	WO2005092182 ("Kotanagi") provides: "(0065) Upon detecting that the LED 5 and the PD 6 are in contact with the living body surface B, the data processing part 9 emits light from the LED 5 toward the living body. A portion of the emitted light is absorbed, for example, by hemoglobin in blood vessels, and another portion of the light is reflected by biological tissue. The PD 6 receives this reflected light, generates a pulse signal (biological information signal) corresponding to the amount of

Claim 1 of U.S. Patent No. 11,474,483	Disclosure in Withheld References
	received light, and outputs the signal to the data processing part 9. That is, since the amount of reflected light out of the light emitted from the LED 5 varies depending on fluctuations in blood flow within arteries and arterioles in the wrist A (living body), the PD 6 can receive reflected light corresponding to the pulsation of arteries □ that is, pulse waves. As a result, the PD 6 can generate a pulse signal." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0063) When it is sensed that the LED 5 and the PD 6 are contacting the biological body surface B, the data processing part 9 irradiates light from the LED 5 directed to the biological body surface B. A part of the irradiated light is absorbed by, for example, hemoglobin in blood vessels, and another part of the light is reflected by biological tissue. The PD 6 receives the reflected light and generates a pulse signal (biological information signal) corresponding to the received light quantity, and this is output to the data processing part 9. That is, since the reflected light amount of light irradiated from the LED 5 varies according to blood flow fluctuations in the arteries and arterioles inside the wrist A (biological body), the PD 6 is able to receive reflected light according to pulsation — that is, pulse-waves — of an artery. As a result, the PD 6 is capable of generating the pulse signal."
the wearable electronic device is configured to measure a second physiological parameter using the first electrode, the second electrode, and the third electrode.	WO2005092182 ("Kotanagi") provides: "(0064) . . . When the pair of electrodes 7a and 7b come into contact with the living body surface B, a discharge occurs through the living body surface B so that the voltage between the electrodes drops. Upon receiving this voltage drop (for example, a drop below a given threshold), the data processing part 9 detects that the pair of electrodes 7a and 7b are indeed in contact with the living body surface B. That is, it detects that the biological sensor part 8 including the LED 5 and the PD 6 is indeed in contact with the living body surface B. In particular, since the pair of electrodes 7a and 7b are disposed so as to sandwich the LED 5 and the PD 6, it can be detected with high precision whether the LED 5 and the PD 6 are in contact with the living body surface B." JP Pub. No. 2005-270543 ("Tanagi") provides: "(0062) When the pair of electrodes 7a and 7b contacts the biological body surface B, discharge is carried out through the biological body surface B, and the voltage between both electrodes drops. Upon receiving the drop in voltage (for example, lower than a certain

Claim 1 of U.S. Patent No. 11,474,483	Disclosure in Withheld References
	threshold), the data processing part 9 senses that the pair of electrodes 7a and 7b is securely contacting the biological body surface B. That is, it senses that the biological sensor part 8 including the LED 5 and the PD 6 is securely contacting the biological body surface B. In particular, since the pair of electrodes 7a and 7b is disposed interposing between the LED 5 and the PD 6, it is possible to sense with high accuracy whether the LED 5 and the PD 6 are contacting the biological body surface B."

141. As discussed below, Apple withheld but-for material references, including Kotanagi, Tanagi, and Shmueli during the prosecution of the Utility Patents.

a. Kotanagi and Tanagi

142. During prosecution, Apple withheld WO2005092182 ("Kotanagi") and its family member, JP Pub. No. 2005-270543 ("Tanagi")[2], from the PTO as prior art. These were not passing references of which Apple was tangentially aware. Rather, at the same time, Apple asserted and relied on Kotanagi and Tanagi in nine *inter partes* review ("IPR") proceedings against Masimo. Myers and others at Apple specifically intended to, and did, withhold these material references from the examiners. Myers and others at Apple specifically intended to, and did, allow the examiners to issue claims they would not have issued if Myers and others at Apple had disclosed Kotanagi or Tanagi to them. At least one of these claims is now being asserted against Masimo.

143. The charts above provide examples of how Kotanagi and Tanagi anticipate or at a minimum render obvious claims of the Utility Patents. For example, the '783 patent claims a wearable electronic device with "a wireless charging receive coil positioned within the housing and aligned with the opening . . . configured to pass wireless power to the wireless charging receive coil." The '491 patent similarly claims "a wireless charging receive coil . . . configured to inductively couple to an external wireless charging device through the non-conductive material of the cover."

144. Kotanagi discloses a wearable electronic device where, "rather than [an] external connection terminal 21, a transformer or the like for supplying power to a recharger . . . may be

[2] The "Kotanagi" referred to in WO2005092182 is the same person referred to as "Tanagi" in JP Pub. No. 2005-270543. The words "Tanagi" and "Kotanagi" are two different English translations of the same person's name. The family that Kotanagi and Tanagi belong to is referred to as the "Kotanagi patent family."

provided so as to recharge the rechargeable battery 13 in a ***contactless state***." Tanagi similarly discloses a wearable electronic device where "a transformer or the like for supplying power is provided . . . and charging of the rechargeable battery 13 is performed in a ***non-contact state***." Kotanagi and Tanagi anticipate or at a minimum render obvious the "wireless charging receive coil" as claimed by the '783 and '491 patents. As such, the examiners for the '783 and '491 patents would not have allowed the patents' claims if Apple did not withhold Kotanagi or Tanagi from them.

145. In another example, the '483 patent claims a wearable electronic device with "a first electrode positioned along a rear surface of the wearable electronic device; and a second electrode positioned along the rear surface of the wearable electronic device."

146. Kotanagi discloses a wearable electronic device with "a pair of electrodes 7a and 7b, and the pair of electrodes 7a and 7b are disposed on the lower surface 4a of the protruding part 4." Tanagi similarly discloses a wearable electronic device with "a pair of electrodes 7a and 7b . . . disposed on the lower surface 4a of the projection part 4. . ." Kotanagi and Tanagi anticipate or at a minimum render obvious the first[/second] electrode positioned along the rear surface of the wearable electronic device claimed in the '483 patent. As such, the examiner for the '483 patent would not have allowed the patent's claims if Apple did not withhold Kotanagi or Tanagi from them.

147. From September 2016 to April 2020, Apple submitted twenty-nine information disclosure statements to the PTO when prosecuting the '783 patent. From March 2020 to February 2021, Apple submitted nine information disclosure statements to the PTO when prosecuting the '491 patent. From February to September 2022, Apple submitted two information disclosure

statements to the PTO when prosecuting the '483 patent. None of these information disclosure statements mention Kotanagi or Tanagi.

148. On December 13, 2019, Apple cited Tanagi, and a certified English translation thereof, against Masimo in its IPR petitions of U.S. Patent Nos. 10,624,564 (IPR2020-01713) and 10,631,765 (IPR2020-01714 and IPR2020-01715). In these IPRs, Apple asserted Tanagi to support its obviousness arguments.

149. On July 15, 2022, Apple asserted Kotanagi, and a certified English translation thereof, against Masimo in its IPR petitions of U.S. Patent Nos. 10,912,501 (IPR2022-01271 and IPR2022-01272,), 10,912,502 (IPR2022-01273 and IPR2022-01274), and 10,945,648 (IPR2022-01275 and IPR2022-01276). Apple asserted Kotanagi as the basis for four of its eight grounds in IPR2022-01271, all grounds in IPR2022-01272, two of four grounds in IPR2022-01273, all grounds in IPR2022-01274, five of nine grounds in IPR2022-01275, and all four grounds in IPR2022-01276.

150. Apple, at least through its Chief IP Counsel Jeffrey Myers, was aware of the Kotanagi Patent Family during the prosecution of the Utility Patents. From September 10, 2016, to September 28, 2022, Myers was an attorney of record for prosecution of the Utility Patents. On August 9, 2021, Myers also signed the power of attorney authorizing Fish and Richardson to represent Apple in IPR2022-01271, IPR2022-01272, IPR2022-01273, IPR2022-01274, IPR2022-01275, and IPR2022-01276, described above. At least Myers thus had a deep knowledge of the Kotanagi Patent Family and its applicability as a prior art reference. Despite this knowledge, Myers and others at Apple withheld the Kotanagi Patent Family from the USPTO during prosecution of the Utility Patents.

151. Mr. Myers and others at Apple selected the law firm Brownstein Hyatt Farber Schreck, LLP to prosecute the Utility Patents. On information and belief, Mr. Myers and others at Apple selected a different firm, Fish and Richardson, to represent Apple in the IPRs, in part to facilitate Apple's inequitable conduct. By using different firms, Mr. Myers and others at Apple compartmentalized information about these patents and publications so that Brownstein Hyatt Farber Schreck, LLP would not disclose but-for material information. Additionally, Mr. Myers and others at Apple affirmatively concealed the Kotanagi Patent Family from the USPTO. Identifying this information to the USPTO would have resulted in the USPTO rejecting the claims and not issuing the patents. The single most reasonable inference from this conduct is that they intended to deceive the Patent Office into improperly allowing the Utility Patents.

b. Shmueli

152. While prosecuting the '483 patent, Apple withheld PCT Pub. No. 2012/140559 (Shmueli) from the PTO as prior art. At the same time, Apple asserted and relied on Shmueli in five IPRs against Alivecor. On information and belief, Myers and others at Apple specifically intended to, and did, withhold a material reference from the examiner during the '483 patent's prosecution. Myers and others at Apple specifically intended to, and did, allow the examiner to issue claims he would not have issued if Apple had disclosed Shmueli to him. At least one of these claims is now being asserted against Masimo.

153. The charts above provide examples of how Shmueli anticipate or at a minimum render obvious claims of the Utility Patents. For example, the '483 patent claims "an electronic watch comprising: . . . ***a first electrode*** positioned along the rear exterior surface of the electronic watch; and ***a second electrode*** positioned along the rear exterior surface of the electronic watch; and ***a third electrode*** positioned along a side of the electronic watch, wherein the electronic watch

is configured to . . . measure a second physiological parameter using t***he first electrode, the second electrode, and the third electrode***."

154. Shmueli claims in part a method whereby an ECG measurement "comprises the steps of: ***providing at least two separate conductive areas configured to measure electrical activity of [a] subject***."

155. Shmueli further claims that this ECG measurement can perform "the step[] of: . . . (ii) contacting a ***first conductive area*** to at least a portion of said wrist, and a ***second and a third conductive areas*** to two fingers of a second hand of the subject . . ."

156. Shmueli anticipates the wearable electronic device comprising "***a first electrode*** positioned along the rear exterior surface of the electronic watch; and ***a second electrode*** positioned along the rear exterior surface of the electronic watch; and ***a third electrode*** positioned along a side of the electronic watch" claimed by the '483 patent. Thus, if the USPTO had been aware of Shmueli while examining the '483 patent, it would not have issued the '483 patent.

157. The examiner was unaware of Shmueli while examining the '483 patent. During the '483 patent's prosecution from February 15 to September 28, 2022, Apple submitted two information disclosure statements to the PTO. Neither of these information disclosure statements mention Shmueli.

158. On June 9, 2021, Apple asserted Shmueli against Alivecor in its IPR petitions of U.S. Patent Nos. 9,572,499 (IPR2021-00970), 10,595,731 (IPR2021-00971), and 10,638,941 (IPR2021-00972). Apple asserted Shmueli as the primary reference for all two grounds in IPR2021-00970, all five grounds in IPR2021-00971, and all three grounds in IPR2021-00972.

159. On September 26, 2022, Apple again asserted Shmueli against Alivecor in its IPR petitions of U.S. Patent Nos. 9,420,956 (IPR2022-01560) and 10,159,415 (IPR2022-01562).

Apple asserted Shmueli as the primary reference for all four grounds in IPR2022-01560, and all three grounds in IPR2022-01562.

160. Apple, through its Chief IP Counsel Jeffrey Myers, was aware of Shmueli during the '483 patent's prosecution. From February 15, 2022 to September 28, 2022, Myers was an attorney of record for prosecution of the '483 patent. On May 6, 2021, Myers also signed the power of attorney authorizing Fish and Richardson to represent Apple in IPR2021-00970, IPR2021-00971, and IPR2021-00972 described above. On August 12, 2022, Myers also signed the power of attorney authorizing Fish and Richardson to represent Apple in IPR2022-01560 and IPR2022-01562 described above. On information and belief, at least Myers had a deep knowledge of Shmueli and its applicability as a prior art reference. Despite this knowledge, Myers and others at Apple withheld Shmueli from the USPTO during prosecution of the '483 patent.

161. Mr. Myers and others at Apple selected the law firm Brownstein Hyatt Farber Schreck, LLP to prosecute the '483 patent. Mr. Myers and others at Apple selected a different firm, Fish and Richardson, to represent Apple in the IPRs. On information and belief, through this scheme, Mr. Myers and others at Apple compartmentalized information about this publication so that Brownstein Hyatt Farber Schreck, LLP would not disclose but-for material information. Additionally, Mr. Myers and others at Apple affirmatively concealed the Shmueli from the USPTO. On information and belief, they did so because they knew that identifying this information to the USPTO would have resulted in the USPTO rejecting the claims and not issuing the patents. The single most reasonable inference from this conduct is that they intended to deceive the Patent Office into improperly allowing the Utility Patents.

162. The effect of Apple's conduct is not limited to the Utility Patents. All subsequent "child" or other related patents that are based on the same specification or relevant portions thereof,

are tainted by Apple's inequitable conduct and, therefore, are also unenforceable under the doctrine of infectious unenforceability.

163. Accordingly, the Apple Design Patents and Utility Patents are unenforceable due to inequitable conduct.

G. Apple's False Advertising

164. Apple relies on false advertising to mislead and deceive the public about the capabilities of the Apple Watch. Apple's tactics deceive consumers into purchasing Apple Watches instead of more reliable products from others, including Masimo.

1. Apple's Blood Oxygen Feature

a. Apple's Advertisements Concerning Blood Oxygen

165. Apple falsely and continually associates the Apple Watch's pulse oximetry feature with medical use and reliable measurements. Apple makes repeated, false, and/or misleading claims about the Apple Watch's functionality, ease-of-use, and accuracy as a pulse oximeter. Apple employs countless tactics to associate its "blood oxygen" feature with medical usage.

166. For example, in September 2020, Apple debuted the Series 6's pulse oximetry feature by introducing it alongside and in relation to long discussions of the Apple Watch's medical utility. Apple began with several minutes of discussion about the medical utility of Apple products, including the Apple Watch. Tim Cook presented the messages he receives "every day from Apple Watch users telling [Mr. Cook] how the watch has changed, and in some cases, saved their lives." Afterwards, Apple played a montage of users claiming the Apple Watch improved their medical conditions or saved their lives. Mr. Cook then explained how "health care providers, insurance companies, and businesses are also seeing the benefits of offering Apple Watches. They know it can make a big difference in the lives of their patients, customers, and employees." Mr.

Cook discussed a Mount Sinai study using Apple Watches to identify stress in health care workers and to purportedly predict COVID infections. Jeff Williams, Apple's Chief Operating Officer in charge of health, then presented additional medical features such as VO2 max while prominently displaying the American Heart Association name and logo. He then stated that "Each year Apple Watch raises the bar adding new features and technology that improve our lives. This year, Apple Watch takes another big leap forward. And I'm excited to show it to you now."

167. After these extensive discussions of medical uses, Apple displayed a large close up of the Series 6 blood oxygen sensor with glowing red emitters. Williams said the Series 6 included "a new health sensor that unlocks an amazing new capability." Apple then showed the back crystal and blood oxygen app. Williams dramatically announced: "with Apple Watch Series 6, you can measure your blood oxygen right from your wrist."

168. Sumbul Desai, MD, Apple's VP of Health, then explained how blood oxygen "is like a vital sign—it's a key measurement that contains critical information about your breathing and circulation." Dr. Desai continued: "Apple Watch is already a powerful health tool with apps that measure heart rate and heart rhythm. And now, adding blood oxygen brings another valuable health measurement to users." Dr. Desai then cited how medical professionals have used blood oxygen as an important COVID-19 indicator. Dr. Desai stated that "blood oxygen and pulse oximetry are terms we've heard a lot about during the COVID pandemic. As you breathe, your heart and lungs work together to deliver oxygen throughout your body. Blood oxygen saturation is an indication of how well this system is functioning and of your overall respiratory and cardiac health. And pulse oximetry is how you measure it." Dr. Desai then announced new Apple research studies "to learn how longitudinal blood oxygen measurements, along with other health metrics from Apple Watch, can help manage conditions that affect the heart and lungs." Dr. Desai told

consumers that the Apple Watch can measure blood oxygen "anywhere and at any time." Dr. Desai never disclosed that, as discussed below, the blood oxygen feature suffers from many flaws and cannot be used anywhere and at any time.

169. Apple updated its website to state: "[t]he remarkable sensor and app in Apple Watch Series 6 allow you to take on-demand readings of your blood oxygen as well as background readings, day and night." Apple released an advertisement entitled "It Already Does That." As shown below, the advertisement showed an astronaut taking a blood oxygen measurement in space with his watch facing away from him. The astronauts were in all manner of positions in which the Apple watch cannot measure oxygen saturation. The advertisement then closed with the tagline: "The future of health is on your wrist."

170. In July 2021, Apple released a Hello Sunshine advertisement. The advertisement showed a woman measuring her blood oxygen saturation while hiking "to the top of a giant mountain." In Apple's September 2021 Event debuting the Series 7, Apple presented an

advertisement showing a woman utilizing Apple's blood oxygen app. The narrator asked: "why are you checking your blood oxygen level?" As the camera zoomed out to reveal the woman awakening in a tent hanging off the wall of a mountain, the narrator exclaimed "Oh, that's why." Apple thus repeatedly encouraged customers to rely on Apple's blood oxygen feature in extreme circumstances, such as high elevations, doing activities where accurately measuring oxygen saturation may be life-critical, and in positions and activities where Apple knows that its watch cannot provide any measurement of oxygen saturation, much less an accurate one.

171. In a September 2022 Event, Apple debuted the Series 8. Tim Cook reiterated the medical importance of the Apple Watch, saying it is "essential in our lives" and "monitors your health and gets help when you need it." Deidre Caldbeck stated the Series 8 has "best-in-class health sensors that enable ECG, irregular rhythm notifications, and blood oxygen" making it "the ultimate device for a healthy life." Caldbeck continued to tout its Apple Watch's health features as being "developed using scientifically validated insights." Apple again advertised that its Apple Watches are useful medical devices, connoting they can alert one to abnormal heart events, take ECGs, and save lives.

172. Also in September 2022, Dr. Desai again promoted publicly the medical uses of pulse oximetry in the Apple Watch, knowing it is not cleared by the FDA for any medical use, and where the fine print of the Apple Watch warns against the very things Dr. Desai promoted. Just after discussing pulse oximetry in the Apple Watch, she went on to tout that Apple wants to move healthcare into the home, and that "the challenge with modern medicine is that the treatments only work on patients who seek them out."

173. The presentations and advertisements discussed above, as well as others, are available and viewed today by customers and potential customers. Through those presentations

and advertisements Apple falsely and misleadingly implies to consumers that the Apple Watch Blood Oxygen is for medical use. Apple falsely and misleading implies that it can and should be relied on anytime, anywhere, including in critical situations.

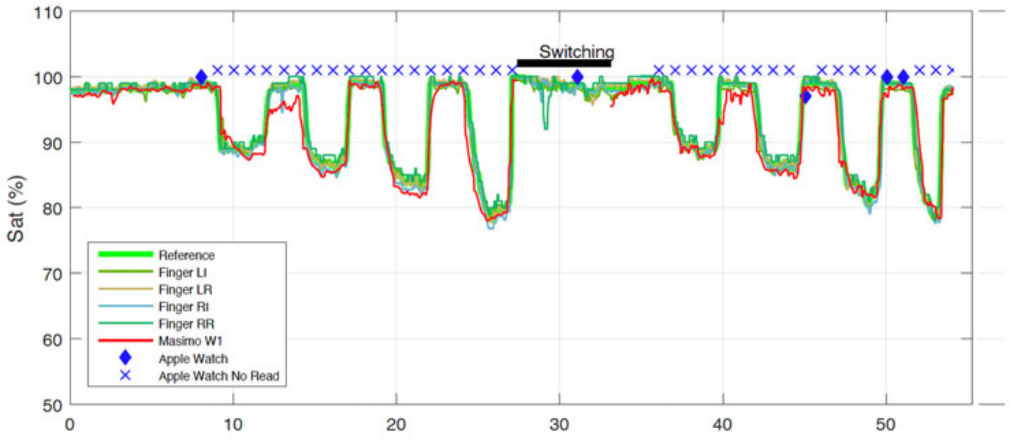
b. Apple Advertising Is False and Misleading

174. Apple's statements and advertising discussed above are false and misleading. Masimo's testing reveals that the Apple Watch is not accurate and would miss about 94% of important medical events when used or relied upon to monitor blood oxygen levels. Masimo conducted a scientific desaturation study that included the Apple Watch. In a desaturation study, a gas blender system provides differing gas mixtures to subjects to reduce the amount of oxygen they breathe in and thus lower their blood oxygen levels. Desaturation studies are standard in the industry to assess accuracy at different oxygen saturation levels and how well pulse oximeters can detect desaturation events. Desaturation events are important indicators of medical emergencies that arise when oxygen saturation levels drop, such as hypoxia. Desaturation events are also important indicators of important medical conditions, such as sleep apnea. Pulse oximetry in the hospital is often referred to as the "fifth vital sign," and is used in all procedures involving anesthesia.

175. Masimo's study evaluated the Apple Watch and Masimo W1 against a control (Masimo Root Radical-7 hospital grade monitor). The study evaluated oxygen saturation readings for 15 subjects in two configurations during multiple three-minute desaturation periods using a gas mixture to desaturate subjects. As shown in the chart below, the Apple Watch detected the desaturation events less than 7% of the time. In contrast, the Masimo W1 tracked the control closely and detected desaturation events 100% of the time.

Detection Rate of Desaturation Events

	Number of Subjects	Number of Valid Events	Detection Rate for Masimo W1 Watch	Detection Rate for Apple Watch
Watch Face Up Masimo Continuous; Apple Sleep Monitoring Mode	7	49	49 / 49 = **100.0%**	3 / 49 = **6.1%**
Sleep Position Masimo Continuous; Apple Manual Trigger	8	60	60 / 60 = **100.0%**	4 / 60 = **6.7%**



176. As shown above, Apple's statements regarding the blood oxygen feature of the Apple Watch are false and misleading. Contrary to Apple's advertisements and the promotion of its most senior executives and its Vice President medical doctor, the Apple Watch cannot measure blood oxygen in a clinically sufficient manner. As shown above, the Apple Watch failed to detect drops in blood oxygen levels more than 93% of the time. Contrary to Apple's advertisements, the Apple Watch does not provide blood oxygen measurements remotely suitable for medical or clinical purposes. Indeed, the Apple Watch measurements shown above do not remotely track the test control hospital monitor. As a result, Apple's promotion of this feature is in reckless disregard of its users. The Apple Watch should not be relied on to measure blood oxygen saturation, particularly during important desaturation events where measurements are the most critical.

177. Contrary to Apple's advertisements, users cannot take a blood oxygen measurement "anytime, anywhere." As shown above, such readings are not available or are

inaccurate 93% of the time. The Apple Watch blood oxygen feature should not be used anywhere, including situations where users may experience lower oxygen saturation levels than normal, such as the high elevations shown in Apple's advertisements.

178. Contrary to Apple's advertisements and medically oriented promotions, the Apple Watch is also not capable of "background readings, day and night." Masimo specifically tested the Apple Watch in sleep monitoring mode and found the Apple Watch detected desaturations only 6.1% of the time. Moreover, by advertising the Apple Watch as capable of providing "background readings" at "night," Apple misleads customers into believing the Apple Watch would be useful for monitoring potential health conditions at night, such as sleep apnea. The data above shows the Apple Watch is incapable of such uses.

179. Apple's false advertising has already harmed and deceived the public. For example, in *The new Apple Watch says my lungs may be sick. Or perfect. It can't decide*, Mr. Fowler states:

> Let's be clear: These companies are marketing a device with medical functions while winking and insisting they're not medical functions.
>
> * * *
>
> Whatever the fine print might say, some people are going to treat these as medical devices — and that's a concern.
>
> * * *
>
> There could be consequences if consumers actually believe the hype about these devices. "I agree with you that it is a dangerous trend for technology companies to release medical devices that don't meet FDA standards and claim that they are not medical devices," said Brian Clark, a pulmonologist and professor at the Yale University School of Medicine.
>
> The most common negative consequence is likely to be people calling their doctors too often because of false low readings. "But the more concerning and potentially dangerous scenario is when the devices provide false reassurance and people don't seek health care when they really need it," Clark said.

* * *

> It should not be acceptable for giant tech companies to market devices that take readings of our bodies without disclosing how those devices were tested and what their error ranges might be.

https://www.washingtonpost.com/technology/2020/09/23/apple-watch-oximeter/.

180. Similarly, in *Apple Watch's blood oxygen monitor is for 'wellness,' not medicine*, Ms. Wetsman states "The company says the feature is simply there to help users understand their fitness and wellness. But Apple did connect the feature back to the COVID-19 pandemic during the product announcement: 'Blood oxygen and pulse oximetry are terms that we've heard a lot about during the COVID pandemic,' said Sumbul Ahmad Desai, Apple's VP of health."

181. Mr. Dieter Bohn of The Verge noted that:

> If you follow the directions to a T, you'll usually get a reading. Sometimes you won't, though, and for me that happened much more often than I was expecting.
>
> The other way the monitor works is that it tries to read your blood oxygen in the background while you are going about your day or sleeping. Here, I often got numbers that were lower than I expected — I think often because the watch wasn't positioned correctly for an accurate reading.

https://www.theverge.com/21496141/apple-watch-series-6-review-blood-oxygen-monitor-watchos-7.

182. Apple wishes to create an impression in consumers' minds that the blood oxygen sensor offers accurately measures blood oxygen in a variety of circumstances. In reality, the Apple Watch blood oxygen feature cannot deliver what Apple advertises.

2. Apple's Irregular Rhythm Notification and ECG Features

183. Apple has also made false and misleading statements to consumers about how they can and should rely on their Apple Watches' irregular rhythm and ECG features. Apple has a "healthcare" website that advertises: "The irregular rhythm notification occasionally checks for signs of irregular rhythms that may be suggestive of atrial fibrillation (AFib). Apple advertises

"With the ECG app, patients who experience symptoms such as rapid or skipped heartbeat, or receive the irregular rhythm notification, can capture an ECG and record their symptoms." Apple encourages people to use the results from these features to seek medical attention.

184. When unveiling the Apple Watch Series 4 with ECG, Jeff Williams stated that it "is the intelligent guardian for your health." In a recent 2022 event, Apple touted examples of customers relying on the Apple Watch heart notification features to seek medical attention. Cook emphasized the Apple Watch "monitors your health and gets help when you need it." Apple thus falsely and misleadingly advertises that customers can and should rely on those features to detect heart conditions and seek medical care.

185. In reality, a Mayo Clinic study found such notifications were not accurate. The study "describe[s] 264 patients who sought medical attention for an abnormal pulse detected using Apple Watch." https://academic.oup.com/jamia/article/27/9/1359/5911974?login=false. The 264 patients "included both patients in whom an automated alert was and was not explicitly documented in clinical notes." The study found that "[a] clinically actionable cardiovascular diagnosis of interest was established in only 30 (11.4%) patients, including 6 of 41 (15%) patients who received an explicit alert." The study also explained that, "[a]mong the 15 asymptomatic patients who presented following an abnormal pulse alert, only 1 was diagnosed with a clinically actionable cardiovascular diagnosis, yielding a number needed to diagnose of 15 (95% confidence interval, 2.9-286.5)." Thus, fourteen out of fifteen asymptomatic patients with an abnormal pulse alert from Apple Watch that sought expensive emergency medical care did not need that costly medical attention.

186. The Verge addressed the Mayo clinic study and reported:

> Most of the concerning heart monitor data, then, were probably false positives, the study concluded. False positives, even though the patient ends up being healthy,

> can still cause problems: they can push patients to get unnecessary health care and cause stress and anxiety. Even people who don't have symptoms, like some people in this study, may still feel the need to talk to a doctor about an abnormal flag on a device like an Apple Watch."

https://www.theverge.com/2020/10/1/21496813/apple-watch-heart-monitor-ekg-false-positive.

187. Thus, contrary to Apple's advertising, the Apple Watch heart features do not get help when users need it. Instead, the vast majority of users who receive notifications do not need to get medical attention. False positives cause a "crying wolf" problem, unnecessary hospital visits that burden the healthcare system, and also prevent patients who actually need care from receiving it. Apple's inaccurate notifications also lead consumers to stop trusting heart notifications and incorrectly believe they do not need medical attention even if they in fact do.

V. ANTITRUST ALLEGATIONS

A. Relevant Markets

1. Health Watch Market

188. The market for consumer wrist-worn watches that measure physiological parameters ("health watches") is a relevant market for antitrust purposes. Measuring physiological parameters includes, for example, the ability to measure oxygen saturation, the ability to take an ECG, and the ability to detect arrhythmias. For purposes of this market definition, physiological parameters do not include more basic features typically found in fitness trackers, such as step counters, calorie counters, and pulse or heart rate. The health watch market includes "smart watches" that measure physiological parameters. It also includes watches with such features that may not have other features common to some "smart watches," such as the ability to send and receive messages, take phone calls, or view a calendar.

189. There is no other product that serves as a reasonably interchangeable substitute for health watches. Consumers cannot turn to other products to serve the same purpose as health

watches. Standard watches are not adequate substitutes for health watches. Health watches and standard watches share little in common other than perhaps the ability to tell time. Standard watches do not have the physiological parameter measurement features that is a key reason why consumers purchase a health watch. Thus, consumers do not consider standard watches as a reasonable substitute for health watches.

190. Smart watches that do not measure physiological parameters are also not adequate substitutes for health watches. Such watches may have some features in common with health watches, but they do not have the other physiological parameter measurement features that are a key reason why consumers purchase a health watch. Thus, consumers do not consider smart watches that do not measure physiological parameters as a reasonable substitute for health watches.

191. Fitness trackers that include more basic features, like step counters, calorie counters, and pulse or heart rate are not adequate substitutes for health watches. Such fitness trackers may have some features in common with health watches, but they do not have the other physiological parameter measurement features that are a key reason why consumers purchase a health watch. As one analyst explained, medical-oriented devices are moving some products into an elevated tier, which creates greater differentiation between advanced health tracking and casual fitness. Thus, consumers do not consider fitness trackers as a reasonable substitute for health watches.

192. Health watches have no reasonably interchangeable substitutes, and there is no significant cross-elasticity of demand between these devices and other products. Because of their price and features, there are no other significant economical substitutes for health watches. Few

buyers would switch from health watches to other devices because they would lose the features that caused them to buy the health watch in the first place.

193. If a hypothetical monopolist were to become the only seller of health watches in the United States, and if at the time these products were sold at competitive prices, the hypothetical monopolist could profitably charge a small but significant non-transitory increase in price (a "SSNIP") for these products. That is, the hypothetical monopolist could profitably impose a permanent price hike – an increase in its prices that was significant, non-transitory, and not justified by increased input costs. This circumstance by itself confirms that health watches constitute a distinct category of products for purposes of antitrust review.

194. Health watches have peculiar characteristics and uses in comparison to other devices discussed above. Health watches also have distinct customers, distinct prices, distinct demand curves (independent sensitivity to price changes), and distinct marketing approaches compared to the other devices discussed above. Manufacturers and consumers regard health watches and the other devices discussed above as separately marketed, sold, and distributed for uses that no other product can fulfill. Thus, the health watches market constitutes a relevant market or, in the alternative, a separate relevant submarket.

2. iOS App Distribution Market

195. The market for distributing iOS Apps is also a relevant market for antitrust purposes. An application ("app") is a program or group of programs designed for end-users of a computing device. Different types of apps allow a computing device to perform different functions; e.g., taking pictures, word processing, playing a game, booking dinner reservations, etc.

196. A computing device user is constrained in app selection by their device's operating system ("OS"). Apps are written to work on a specific OS and can work only on that OS. Thus,

iOS device users can use only iOS apps, Android users can use only Android apps, and so on. As relevant here, iOS users can use only applications written for iOS. An iOS user looking for certain functionality on their device may therefore choose only apps that both offer specific functionality and are written for iOS.

197. Apple iPhones are preloaded with the Apple App Store. Other than insignificant distributions through unauthorized "sideloading," the Apple App Store is the exclusive distributor of applications for iOS. Thus, the Apple App Store is the only reasonable choice for consumers to acquire iOS applications. As discussed below, Apple exercises complete control over the Apple App Store. Apple has the ability to control which applications are sold in the Apple App Store, how applications can be updated, when applications are updated, and more. As such, the limitations of iOS apps are similar to those of Apple devices. Specifically, Apple customers can only access apps that Apple has allowed into its ecosystem. There is nothing a developer can do if Apple removes its app from the App Store, or in the alternative, limits the app's capabilities.

198. A House Subcommittee On Antitrust, Commercial and Administrative Law addressed this market in its Investigation of Competition in Digital Markets. https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf?utm_campaign=4493-519. That report discusses a market for distribution of software applications on iOS devices. As discussed below, that report concluded that Apple possesses "monopoly power over distribution of software applications on iOS devices."

199. Apps for other operating systems are not reasonable substitutes for iOS apps. Apple iOS users cannot use apps for other operating systems such as Android without switching their phones. Apple products are particularly "sticky" because Apple places its customers into an "ecosystem" where product functionality, compatibility, and interoperability, is limited to Apple-

approved apps and products. Once consumers buy one Apple device, they purchase other Apple products to maintain the cross-functionality of their products, including as to music (iTunes), photos, Apple TV, etc. This limits consumers' switching between Android and Apple phones. Thus, iOS consumers do not consider apps written for Android and other operating systems a reasonable substitute for iOS apps. As a result, the ability to distribute apps for Android and other operating systems is not a reasonable substitute for distributing apps on iOS.

200. If a hypothetical monopolist were to become the only distributor of iOS apps in the United States, the hypothetical monopolist could profitably charge a small but significant non-transitory increase in price (a "SSNIP") for these products. That is, the hypothetical monopolist could profitably impose a permanent price hike – an increase in its prices that was significant, non-transitory, and not justified by increased input costs. Indeed, Apple controls essentially the entire iOS App Distribution Market and has successfully imposed permanent price hikes at least by requiring all app developers pay Apple 30% of sales. This circumstance by itself confirms that the iOS App Distribution Market constitutes a distinct market for purposes of antitrust review.

201. iOS apps have peculiar characteristics and uses in comparison to other mobile phone apps. iOS app also have distinct customers, distinct prices, distinct demand curves (independent sensitivity to price changes), and distinct marketing approaches compared to the other mobile phone apps discussed above. Manufacturers and consumers regard iOS apps and the other mobile phone apps discussed above as separately marketed, sold, and distributed for uses that no other product can fulfill. Thus, the iOS App Distribution market constitutes a relevant market or, in the alternative, a separate relevant submarket.

3. Relevant Geographic Market

202. The effective area of competition (or relevant geographic market) for the health watch market at issue in the present case is the United States. U.S. consumers have different buying patterns from consumers outside the U.S. and purchase health watches from suppliers that serve the U.S. Health Watch suppliers sell different versions of the same watch for use inside the U.S. compared to outside the U.S. The U.S. also has different regulatory requirements from other countries, such as FDA clearance for certain health features. Some versions of the Samsung Galaxy Watch 5 sold outside the U.S. include a "blood pressure" feature that is not included in the U.S. version of the Samsung Galaxy Watch 5. Apple similarly sells different versions of the Apple Watch based on geography. Health Watch suppliers that sell health watches in the U.S. also face assertions of patents and other intellectual property rights that are limited to the U.S. In this case, Apple has asserted fraudulently obtained U.S. patents against Masimo in an attempt to exclude Masimo from the U.S. market. Health watch manufacturers who make their products available in the U.S. sell to all parts of the country. There are no substantial geographic barriers within the U.S. due to transportation costs or regulation that prevent firms from selling health watches throughout the U.S.

203. The effective area of competition (or relevant geographic market) for the iOS App Distribution Market at issue in the present case is the United States. As discussed, the only authorized distributor of iOS apps is the Apple App Store. Apple has separate Apple App Stores for different countries or geographic locations. For example, the U.S. Apple App Store contains a different set of applications than Apple App Stores in other countries. Apps available in the U.S. Apple App Store are available in all parts of the country. There are no substantial geographic

barriers within the U.S. due to transportation costs or regulation that iOS apps from being distributed throughout the U.S.

204. Accordingly, the relevant geographic market for the markets described above is the United States.

B. Apple Dominates the Relevant Antitrust Markets

1. Apple Has Monopoly Power In The Health Watch Market

205. Apple exercises monopoly power in the relevant antitrust markets. Apple is the dominant seller of health watches in the United States and has monopoly power in this market. On information and belief, Apple's market share exceeds 70% and its market position is protected by strong barriers to expansion and entry. Apple can and does charge well in excess of a competitive price for its products. Other sellers have significantly smaller market shares than Apple and cannot act as viable competitors that can expand output and impose discipline on Apple's commercial conduct.

206. Apple's market share of the U.S. health watch market exceeds 70%. Analysts have estimated Apple's share of U.S. smart watch sales exceeds 90%. Others estimate Apple's global market share of smart watches is about 50%. Because other brands like Huawei and Samsung are much more popular overseas, one would expect Apple's U.S. market share of smart watches to be significantly greater. One would expect Apple's market share of the health watch market to be greater than or equal to its share of the smart watch market, including because the health watch market excludes smart watches that lack physiological measurement features. Accordingly, the available data suggests Apple's market share of the health watch market exceeds 70% and could exceed 90%.

207. The Herfindahl-Hirschman Index ("HHI") is a measure to evaluate market concentration. A market's HHI is calculated by summing the squares of each market participant's market share. A market with an HHI above 2,500 is considered highly concentrated, a market with an HHI of 1,500 – 2,500 is considered moderately concentrated, and a market with an HHI below 1,500 is considered unconcentrated. Based on the above market shares, the HHI in the health watch market exceeds 5,000, which indicates the market is extremely concentrated.

208. Apple's market position is protected by high barriers to entry and expansion ("market barriers"). Perhaps the most significant market barriers are Apple's entrenched monopoly and anticompetitive conduct. Such conduct is described in more detail below.

209. Another market barrier is high startup costs in the form of cash outlay, research & development, and specialized technical and medical knowhow. Providers of health watches need to dedicate significant resources to developing or obtaining the right to use various medical technology included in health watches. Participation in the industry also requires a substantial portfolio of intellectual property. Sellers may need to license intellectual property rights from others and may need to develop their own portfolio.

210. Another market barrier is that manufacturers are required to make large capital investments, including in facilities and machinery. Such investments are required to achieve economies of scale. Firms need to produce enough products to be able to profitably sell them at market prices.

211. Another market barrier is the need for investment to distribute products, including through sales at physical locations and/or distribution channels. For example, Apple also has 273 Apple retail stores in the United States, as well as significant distribution channels with third-party retailers.

212. An additional market barrier is the need to employ highly skilled professionals, including engineers, designers, doctors, and other individuals with technical backgrounds. Sellers in this market require rarified technical proficiency.

213. U.S. rules and regulations form another market barrier. As discussed, market participants need to comply with such rules and regulations, including obtaining FDA clearance where necessary.

214. Another market barrier is the need for health watches to interact with smartphones with smartphone apps. If a health watch provider wants access to Apple smartphone users, it must obtain Apple's approval for any companion iOS smartphone app. Similarly, if a health watch provider wants access to Android smartphone users, they must obtain approval from an Android App Store, such as the Google or Samsung App Stores.

215. Another market barrier is brand recognition. Market participants must develop an established brand that becomes trusted by consumers.

216. Thus, Apple's dominant market share and high market barriers indicate that Apple wields monopoly power in this market. Apple faces no threat that any existing or potential competitor can readily deprive it of sales by expansion or entry if it imposes a SSNIP, or if it imposes other onerous terms that its customers would not accept in competitive markets.

217. Even if the market were broader than the health watch market defined above, Apple would still have monopoly power. As discussed, analysts have estimated Apple's share of U.S. smart watch sales exceeds 90%. Thus, even if one were to broaden the market to include all smart watches, Apple's share would still exceed 70%. The HHI would still exceed 5,000, which would still indicate the market is extremely concentrated. Apple's dominant position would also be protected by high market barriers discussed above. As a result, Apple would still possess

monopoly power even if the market were expanded to include smart watches without physiological parameter measurement features.

2. Apple Has Monopoly Power In The iOS App Distribution Market

218. Apple also has complete control over the iOS App Distribution Market. The Apple App Store is the only authorized distributor of iOS apps. Thus, Apple has unfettered control over which apps are allowed in the Apple App Store, which apps get visibility, when the apps can be updated, how they are updated, and, ultimately, which apps consumers can use. Unauthorized methods of obtaining iOS apps constitute a de minimis portion of the iOS App Distribution Market. Apple controls over 90%, and likely close to 100%, of the iOS App Distribution Market. Based on the market shares discussed above, the HHI for the App Distribution Market exceeds 8,000 and may approach 10,000, indicating the market is extremely concentrated.

219. Apple's dominance of the iOS App Distribution Market is protected by high market barriers. Many of the above-discussed market barriers apply here, including high startup and switching costs, R&D and personnel costs, brand recognition, and more. Additionally, Apple has vigorously targeted and sought to prevent any and all unauthorized methods of distributing iOS apps. Apple has argued that any unauthorized iOS app store is a safety hazard and could lead to a variety of consequences for Apple consumers. As a result, few competing iOS app stores exist and none can be reasonably accessed by consumers.

220. The House Subcommittee report above addressed Apple's market power and concluded Apple has "monopoly power over distribution of software applications on iOS devices." https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf?utm_campaign=4493-519. As explained therein:

> Apple has significant and durable market power in the market for mobile operating systems and mobile app stores, both of which are highly concentrated. Apple's

> iOS mobile operating system is one of two dominant mobile operating systems, along with Google's Android, in the U.S. and globally. Apple installs iOS on all Apple mobile devices and does not license iOS to other mobile device manufacturers. More than half of mobile devices in the U.S. run on iOS or iPadOS, an iOS derivation for tablets introduced in 2019. Apple's market power is durable due to high switching costs, ecosystem lock-in, and brand loyalty. It is unlikely that there will be successful market entry to contest the dominance of iOS and Android.
>
> As a result, Apple's control over iOS provides it with gatekeeper power over software distribution on iOS devices. Consequently, it has a dominant position in the mobile app store market and monopoly power over distribution of software applications on iOS devices.

221. Apple's platform/ecosystem business model amplifies its power. As discussed above, Apple places its customers into an "ecosystem" where product functionality, compatibility, and interoperability, is limited to Apple-approved apps and products. This limits customer's switching between Android and Apple phones.

222. Apple's actions also demonstrate its dominance over the iOS App Distribution Market. As discussed, Apple includes anticompetitive terms in the Developer Agreement. If a competitor does not agree to Apple's terms, it must forego more than one hundred million potential customers who use iOS. Apple requires that developers agree that Apple is free to use and disclose anything they provided to Apple for any purpose without notice or compensation. Apple then uses the information that it obtains from developers to compete against and drive those same developers out of business. As the *Washington Post* explained:

> [W]hat makes Apple's practice different is its access to a trove of data that nobody else has. The App Store, where the original apps were offered and competed for downloads, collects a vast amount of information on which kinds of apps are successful—even monitoring how much time users spend in them. That data is shared widely among leaders at the tech giant and could be used to make strategic decisions on product development, said Phillip Shoemaker, who served as Apple's director of App Store review from 2009 to 2016.

Apple then uses the data that only it has to evaluate companies to copy. After finding a target, Apple incorporates the technology into its product and puts the third-party developer out of

business. As the *Washington Post* explained, "Apple's past incorporation of functionality included in other third-party apps has often led to their demise."

223. Apple's dominance is further demonstrated by the actions Apple has taken against Masimo. In April 2020, at the height of the COVID-19 pandemic, Masimo released Masimo SafetyNet to allow doctors to monitor patients at home. Masimo worked quickly with the FDA to gain permission to market Masimo SafetyNet to help monitor COVID-19 patients at home. The system includes a small wrist-worn device and a finger sensor that transmits vital signs to a user's smartphone and then to their doctor. News outlets covered how Masimo SafetyNet was helping save lives and reduce the incredible burden that COVID-19 placed on the healthcare system.

224. Rather than allow Masimo to update its life-saving technology to help patients and doctors during the pandemic, Apple abused its dominant position in the market in an attempt to gain a competitive advantage. Unbeknownst to Masimo at the time, Apple was working to capitalize on the pandemic by releasing its own blood oxygen feature in its upcoming Series 6 Apple Watch, which Apple released in September 2020. Leading up to that release, Apple exercised its power in the iOS App Distribution Market by refusing to allow Masimo to make important updates to Masimo's iOS app that works with Masimo SafetyNet unless Masimo disclosed confidential and trade secret information to Apple. Apple demanded details of Masimo's FDA communications and FDA strategy. Additionally, as discussed in detail above, since November 2022 Apple has prevented Masimo from launching its Masimo Health App that allows numerous features for the W1.

225. Thus, Apple wields monopoly power in this market. Apple is the sole authorized distributor for all iOS Apps. Apple has complete control of the market and faces no threat from any existing or potential competitor.

C. Apple's Anticompetitive Conduct and Scheme

226. Apple has engaged in anticompetitive conduct and an overall anticompetitive scheme to harm competition in the health watch market and maintain or bolster Apple's monopoly power in that market. Each of Apple's anticompetitive acts, considered separately or together as part of Apple's overall anticompetitive scheme, is illegal and causes substantial competitive harm, as further explained below. Each of Apple's anticompetitive acts compliments the others in their collective purpose of eliminating or at least substantially hindering competition. Apple's conduct and scheme is ongoing and is resulting in continuing injury.

227. Apple is attempting to entirely exclude Masimo's W1 product from the Health Watch Market by knowingly asserting fraudulent patents. As discussed above, Apple engaged in fraudulent conduct before the USPTO to obtain patents. Apple now asserts those patents against Masimo in an attempt to exclude the W1 product entirely from the market and bolster or enhance Apple's monopoly power. Apple's claim of infringement of the fraudulently obtained patents is objectively baseless because no reasonable litigant could conclude that Apple's claims are reasonably calculated to elicit a favorable outcome because of Apple's fraudulent conduct in obtaining the fraudulently obtained patents, as described herein. Apple did not have probable cause to assert its claims of infringement of the fraudulently obtained patents against Masimo at least because those patents are invalid and unenforceable. Instead, Apple's infringement claims are nothing more than an attempt to force Masimo to exit the market and/or spend millions of dollars to defend itself against Apple's baseless allegations, raising its rival's costs. Based on information and belief, Apple's claims of infringement of the fraudulently obtained patents were motivated by a desire to impose anticompetitive injury rather than a justifiable legal remedy. By

eliminating Masimo, Apple hopes to substantially eliminate competition, allowing Apple to unlawfully expand and maintain its monopoly in the health watch market indefinitely.

228. Apple has also abused and improperly leveraged its monopoly power in the iOS app distribution market to harm Masimo and competition as a whole in the separate health watch market. For example, Apple has unjustifiably refused to approve Masimo's companion iOS health app for the Masimo W1. Apple did so on a false pretense that Masimo must show that its product has FDA clearance for pulse oximetry even though Apple's own competing product lacks such clearance. Through such conduct, Apple has unfairly exploited its monopoly power in the iOS app distribution market to limit the features available for the Masimo W1 in the health watch market and delay Masimo's products, harming competition and consumers in the health watch market. Apple did so in an attempt to obtain information about Masimo's products that other competitors could not obtain. Apple did so pursuant to anticompetitive provisions in the iOS Developer Agreement that Apple contends permits Apple to use confidential information shared with Apple in connection with app approval for any purpose, including the development of competing products. Apple's conduct regarding the W1 mirrors its previous exploitation of its monopoly power in the iOS App Distribution Market delaying a critical Masimo app update relating to Patient Safety Net during COVID to demand Masimo's confidential communications with the FDA.

229. Apple has also engaged in a campaign of false advertising in an attempt to misrepresent the capabilities of the Apple Watch. Apple misleads and deceives the public about the blood oxygen, irregular rhythm notification, and ECG features. Apple uses false and misleading advertisements to increase sales of the Apple Watch and stamp out fair competition on the merits. Through its false advertising, Apple is flooding and continuing to flood the market

with inferior technologies, which destroy the reputation of such technologies in the minds of many consumers, particularly those who view Apple has a leading company that would presumably release the best possible technology. Such conduct is destroying and, if not enjoined, will continue to destroy the health watch market or at a minimum, substantially damage competition in that market. Apple's false and deceptive advertising campaign is being carried out to the detriment of the consuming public and the health watch market, and competitors, including Masimo.

230. Apple's overall scheme is furthered by Apple's so-called efficient, but in reality predatory, infringement. Apple's predatory infringement has resulted in Apple flooding the market with vast sales of products that inject consumers into the ecosystem of connected Apple products and services. Apple understands and expects that it will be many years before any relief is provided for Apple's theft of Masimo's technologies. In the meantime, Apple hopes to permanently capture, maintain and/or bolster its monopoly position in the Health Watch Market. Further, by flooding the market with inferior technologies, Apple is destroying and will continue to destroy the health watch market or at a minimum, substantially damage competition in that market.

D. Apple is Harming Competition and Consumers

231. Apple's conduct has caused and, if not enjoined, will continue to cause substantial harm to competition and to consumers. Apple's conduct threatens the price, quality, availability, and market-wide output of health watches. Apple's anticompetitive acquisition and maintenance of monopoly power and its anticompetitive conduct directly threaten demonstrable harm to competitive processes in the affected market.

232. Apple's anticompetitive conduct, if left unchecked, will result in higher prices, fewer choices, and inferior products. Apple seeks to use fraudulently obtained patents to

completely exclude from the market the very competitor most able to provide a competitive check against Apple and bring life-saving medical-grade technology to consumers. If Apple were to succeed in excluding Masimo from the health watch market, Apple would become further entrenched as a monopolist and further free to set its prices far above the level that would occur in the presence of true competition, set a low standard for health watch performance, and continue to sell inferior products. The exclusion of the very competitor most able to provide a competitive check against Apple would also result in fewer customer choices and inferior products.

233. Apple's conduct also threatens continued innovation in the health watch market. If Apple successfully excludes the very competitor most able to provide a competitive check against Apple and bring world-leading technology to consumers, consumers will be deprived of future innovations by Masimo in the health watch market. Masimo and other companies' incentives to innovate in that market will also be decreased or eliminated. As a result, Apple's conduct directly and substantially threatens competition, prices, market-wide output, and innovation.

234. Apple is also exploiting and leveraging its monopoly power over iOS app distribution to impair competition and diminish the quality of products in the separate market for health watches, to the detriment of consumers and competition. Apple is further misleading customers into purchasing and relying on Apple Watches for health monitoring, including to monitor serious conditions, even though the Apple Watch is woefully deficient if so used. Apple is engaging in this and other conduct as part of an overall scheme to protect its own dominant share of the health watch market and continue flooding the market with technologically inferior watches that will eventually poison the market by undermining consumer confidence in health watches, particularly given Apple's false advertising.

235. Apple's unlawful conduct has no pro-competitive benefit and no legitimate business purpose. Apple's unlawful conduct has no effect on improving its efficiency or effectiveness and does not provide any benefit to consumers. Apple's conduct has also not resulted in lower prices. To the contrary, Apple's conduct has caused and threatens to cause higher prices.

236. Apple lacks any legitimate business justification for the above-identified anticompetitive practices. All categories of conduct in Apple's anticompetitive scheme are illicit and are cumulatively used to monopolize. Apple cannot claim it was justified in engaging in the identified anticompetitive conduct. Apple's actions undermine Masimo's rights, and work directly to exclude competition.

237. There are also no procompetitive benefits to consumers, competition, or innovation from Apple's anticompetitive conduct and ongoing anticompetitive scheme. This scheme benefits no one except for Apple. Apple's anticompetitive scheme aims to undermine and eliminate competitors, and its monopoly power ensures that no other company can do the same.

E. Masimo's Antitrust Injury and Standing

1. Masimo's Antitrust Injury

238. Masimo has suffered losses as a direct consequence of the anticompetitive aspects of Apple's conduct. Apple's enforcement of the invalid and unenforceable patents has produced significant injury to Masimo. Apple has forced Masimo to expend substantial amounts of money, time, and human resources to defend this action. Apple's anticompetitive conduct has and threatens to impact Masimo's business and reputation. Such injuries are of the type that the antitrust were intended to prevent and flow from that which makes Apple's acts unlawful. Apple is attempting to prevent Masimo from competing against Apple in the relevant market. Apple is attempting to force Masimo to either exit the market or spend substantial time and money

defending against Apple's baseless lawsuit, raising its rival's costs. Apple is also leveraging its power over iOS apps to block the W1 and diminish the attractiveness of Masimo's W1 Watch. Apple has also engaged in a campaign of false advertising to conceal the fundamental flaws in the Apple Watch and direct sales away from Masimo's W1 Watch. Apple's campaign of false advertising and flooding of the market with inferior products is spoiling and threatens to spoil, substantially harm and/or hinder the health watch market as consumers question the effectiveness of watch-based health technologies, and are misled about the effectiveness of the Apple Watch for medical purposes. Apple's anticompetitive conduct has caused Masimo to lose sales, customers, and opportunities that would have otherwise been available.

239. Apple's anticompetitive abuses have thus caused Masimo to suffer unreasonably large, ongoing monetary losses and opportunities as well as erosion of its goodwill and brand. All of Masimo's above-described losses are antitrust injuries – i.e., losses proximately caused by the anticompetitive aspects and character of Apple's conduct. The full extent of Masimo's losses will be determined at a later stage of these proceedings.

2. Masimo's Antitrust Standing

240. Masimo has antitrust standing to bring the present claims for many reasons. As alleged above, Masimo has suffered antitrust injury. Apple is attempting to prevent Masimo from competing against Apple in the relevant markets by enforcing fraudulently obtained patents. Apple is also leveraging its power over iOS apps to diminish the quality and attractiveness of Masimo's W1 Watch. Apple has also engaged in a campaign of false advertising to conceal the fundamental flaws in the Apple Watch and direct sales away from Masimo's W1 Watch. Apple is flooding the market with inferior products that are spoiling and threatening to spoil, substantially harm and/or hinder the health watch market, including Masimo's sales of the W1 Watch. Owing

to Apple's above anticompetitive practices and overall scheme, Masimo has suffered and is suffering direct, large, and ongoing losses.

241. Other relevant factors also show that Masimo has antitrust standing and should be permitted to bring this counterclaim. There is a direct causal connection between Apple's antitrust violations and the harm Masimo is suffering, and Apple's intent to cause harm to competition. Apple has targeted anticompetitive conduct at Masimo because Apple recognizes that absent the anticompetitive conduct, Masimo has the potential to be a highly effective competitor in the health watch market.

242. As discussed above, Masimo's injuries are of the type for which antitrust laws were intended to provide redress. Apple is engaging in anticompetitive acts that harm and threaten to harm competition, Masimo, and other competitors or potential competitors. Precluding Apple's anticompetitive behavior will open up the relevant market and ensure the market is not spoiled, allowing Masimo and other competitors or potential competitors to compete and do so fairly against Apple without the reality, threat, or potential threat of Apple's anticompetitive conduct. As a result, the goals of the antitrust laws will be achieved by encouraging free and open competition, which will increase quality and innovation while driving prices down.

243. Masimo is also the direct victim of Apple's conduct and is uniquely situated to complain of the above-pled antitrust wrongs and to demonstrate their occurrence and anticompetitive effects. Masimo has the evidence, understanding, direct knowledge, financial interest, and resources to state, develop, and present these antitrust claims.

244. Finally, there is no significant risk of duplicative recovery or complex apportionment. Masimo's losses directly flow from the anticompetitive conduct it now challenges. There is no risk of an improper allocation of these losses among various claimants, nor any risk

that Apple will be ordered to pay the same damages twice if it is ordered to compensate Masimo for its antitrust injuries. Masimo's losses are not speculative, remote, or tenuously connected to Apple's antitrust misconduct. In addition, Apple's anticompetitive misconduct has directly and significantly harmed Masimo in the manner pled above and in the very market in which Apple has committed its anticompetitive acts. Masimo therefore has antitrust standing to assert its present antitrust challenge against Apple.

VI. PATENT ALLEGATIONS

A. The Asserted Patents

245. Masimo's inventions related to non-invasive monitoring of physiological parameters are disclosed, embodied, and recited in, among other patents, U.S. Patent Nos. 10,912,501 (the "'501 Patent"), 10,912,502 (the "'502 Patent"), 10,945,648 (the "'648 Patent"), 10,687,743 (the "'743 Patent"), 10,687,745 (the "'745 Patent"), 10,722,159 (the "'159 Patent"), 7,761,127 (the "'127 Patent"), 8,190,223 (the "'223 Patent"), 10,736,507 (the "'507 Patent"), and 10,984,911 (the "'911 Patent") (collectively, the "Asserted Patents").

246. Masimo owns by assignment the '501 Patent and exclusively licenses certain rights to the patent to a Masimo spin-off company now known as Cercacor Laboratories, Inc. ("Cercacor"). The patent is entitled "User-Worn Device for Noninvasively Measuring a Physiological Parameter of a User." The U.S. Patent and Trademark Office ("PTO") lawfully and duly issued the patent on February 9, 2021, then issued a certificate of correction for it on April 6, 2021. A true and correct copy of the patent is attached hereto as Exhibit 1.

247. Masimo owns by assignment the '502 Patent and exclusively licenses certain rights to the patent to Cercacor. The patent is entitled "User-Worn Device for Noninvasively Measuring a Physiological Parameter of a User." The PTO lawfully and duly issued the patent on February 9,

2021, then issued a certificate of correction on July 6, 2021. A true and correct copy of the patent is attached hereto as Exhibit 2.

248. Masimo owns by assignment the '648 Patent and exclusively licenses certain rights to the patent to Cercacor. The patent is entitled "User-Worn Device for Noninvasively Measuring a Physiological Parameter of a User." The PTO lawfully and duly issued the patent on March 16, 2021, then issued a certificate of correction on April 20, 2021. A true and correct copy of the patent is attached hereto as Exhibit 3.

249. Masimo owns by assignment the '743 Patent and exclusively licenses certain rights to the patent to Cercacor. The patent is entitled "Physiological Measurement Devices, Systems, and Methods." The PTO lawfully and duly issued the patent on June 23, 2020, then issued a certificate of correction on September 22, 2020. A true and correct copy of the patent is attached hereto as Exhibit 4.

250. Masimo owns by assignment the '745 Patent and exclusively licenses certain rights to the patent to Cercacor. The patent is entitled "Physiological Measurement Devices, Systems, and Methods." The PTO lawfully and duly issued the patent on June 23, 2020, then issued a certificate of correction on September 22, 2020. A true and correct copy of the patent is attached hereto as Exhibit 5.

251. Masimo owns by assignment the '159 Patent and exclusively licenses certain rights to the patent to Cercacor. The patent is entitled "Physiological Monitoring Devices, Systems, and Methods." The PTO lawfully and duly issued the patent on July 28, 2020, then issued a certificate of correction on September 8, 2020. A true and correct copy of the patent is attached hereto as Exhibit 6.

252. Cercacor owns by assignment the '127 Patent and exclusively licenses certain rights to the patent to Masimo. The patent is entitled "Multiple Wavelength Sensor Substrate." The PTO lawfully and duly issued the patent on July 20, 2010, then issued a certificate of correction on February 1, 2011. A true and correct copy of the patent is attached hereto as Exhibit 7.

253. Cercacor owns by assignment the '223 Patent and exclusively licenses certain rights to the patent to Masimo. The patent is entitled "Noninvasive Multi-parameter Patient Monitor." The PTO lawfully and duly issued the patent on May 29, 2012, issued a certificate of correction on November 13, 2012, then issued an *ex parte* reexamination certificate on April 24, 2013. A true and correct copy of the patent is attached hereto as Exhibit 8.

254. Masimo owns by assignment the '507 Patent and exclusively licenses certain rights to the patent to Cercacor. The patent is entitled "Physiological Monitor with Mobile Computing Device Connectivity." The PTO lawfully and duly issued the patent on August 11, 2020, then issued a certificate of correction on March 30, 2021. A true and correct copy of the patent is attached hereto as Exhibit 9.

255. Cercacor owns by assignment the '911 Patent and exclusively licenses certain rights to the patent to Masimo. The patent is entitled "Multiple wavelength sensor emitters." The PTO lawfully and duly issued the patent on April 20, 2021, then issued a certificate of correction on June 29, 2021. A true and correct copy of the patent is attached hereto as Exhibit 10.

B. Apple's Accused Products

256. With the launch of Apple Watch Series 6 in September 2020—which included a Blood Oxygen sensor and a Blood Oxygen app—Apple for the first time incorporated the ability to measure blood oxygen saturation (i.e., pulse oximetry) into its Watches. *See, e.g.*, https://www.apple.com/newsroom/2020/09/apple-watch-series-6-delivers-breakthrough-

wellness-and-fitness-capabilities (last visited Dec. 5, 2022) (Apple touting its "Blood Oxygen Sensor and App" as "a new feature" on Apple Watch Series 6 to "measure[] the oxygen saturation of the user's blood"). Apple Watch Series 7, launched a year later in September 2021, also include the blood oxygen feature. *See, e.g.*, https://www.apple.com/newsroom/2021/09/apple-reveals-apple-watch-series-7-featuring-the-largest-most-advanced-display (last visited Dec. 5, 2022) ("The newest Apple Watch continues to offer indispensable tools for health and wellness, including … a Blood Oxygen sensor and app."). Apple Watch Series 8 and Apple Watch Ultra, launched a year later in September 2022, similarly include the blood oxygen feature. *See, e.g.*, https://www.apple.com/apple-watch-series-8 (last visited Dec. 5, 2022) ("Apple Watch Series 8 allow[s] you to take on-demand readings of your blood oxygen …."); https://www.apple.com/apple-watch-ultra/ (last visited Dec. 5, 2022) (showing that Apple Watch Ultra includes Blood Oxygen sensor and app); https://support.apple.com/en-us/HT211027 (last visited Dec. 5, 2022) (showing that "Apple Watch Series 6, or Series 7, Series 8, or Ultra" include a Blood Oxygen sensor and app); https://support.apple.com/guide/watch/blood-oxygen-apdaf17aa5ef/watchos (last visited Dec. 5, 2022) ("Use the Blood Oxygen app on Apple Watch Series 6 or later to measure the percentage of oxygen your red blood cells carry from your lungs to the rest of the body [i.e., measure oxygen saturation].").

257. Masimo is informed and believes and thereupon alleges that Apple Watch Series 6, Apple Watch Series 7, Apple Watch Series 8, Apple Watch Ultra (collectively, the "Accused Products") infringe inventions recited in the claims of the Asserted Patents.

258. Masimo is informed and believes and thereupon alleges that each of the Accused Products includes the same or substantially the same Blood Oxygen sensor and Blood Oxygen app such that the Accused Products are substantively identical with respect to the asserted claims of

the Asserted Patents. Accordingly, Masimo is informed and believes and thereupon alleges that the structure and operation of any of the Accused Products is representative of the structure and operation of the remaining Accused Products for the purposes of demonstrating infringement of the asserted claims of the Asserted Patents.

VII. FIRST COUNT

(Monopolization, 15 U.S.C. § 2)

259. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

260. For purposes of antitrust review, there exists a relevant market, or in the alternative submarket, for the sale of health watches in the United States.

261. Apple has monopoly power in the health watch market. Apple has a market share of at least 70% in that market. Its position in this market is protected by high barriers to entry and expansion.

262. Apple has willfully acquired, maintained, and/or enlarged its monopoly power in this market through the above-pleaded exclusionary and anticompetitive means. Apple is engaged in anticompetitive conduct and an ongoing and overarching anticompetitive scheme designed to maintain its monopoly power in the health watch market. By engaging in the above-pleaded conduct, Apple is abusing and has abused its monopoly power, and severely impeded and undermined competition in the health watch market, thereby entrenching and enlarging its monopoly position.

263. By engaging in the above-pleaded conduct, Apple is also leveraging its monopoly power in the iOS distribution app market to harm competition in the separate health watch market.

Through such unlawful monopoly leveraging, Apple is harming competition and entrenching and enlarging its monopoly position in the health watch market.

264. Apple is not competing on the merits and does not have a more efficient production or superior product quality. Instead, Apple is maintaining and attempting to bolster its dominant share of the market through a variety of anticompetitive means. Apple's conduct has directly resulted in demonstrable harm to competitive processes in the affected market, including an adverse effect on prices, fewer choices and inferior products, raising rivals' costs, and limiting rivals' market penetration. Apple's unlawful conduct has and will directly and proximately cause injury or loss to interstate commerce and to consumers.

265. Apple's unlawful conduct further harms competition and thereby causes and threatens injury or loss to Masimo's business, property, and competitive position, which will continue unless Apple's anticompetitive conduct is enjoined. Specifically, Masimo has lost and will lose substantial sales and profits from within the health watch market that would take place but for Apple's behavior. Masimo's injuries are of the type that antitrust laws are intended to prohibit, and flow directly from Apple's anticompetitive conduct in violation of Section 2 of the Sherman Act.

266. Masimo has antitrust standing and has suffered losses in proximate consequence of the anticompetitive character of Apple's monopolization of these markets (i.e., Masimo has suffered compensable antitrust injuries). These losses remain ongoing, since Apple persists in the above-pleaded anticompetitive conduct.

267. Without injunctive relief, Apple will continue to monopolize and restrain trade in the health watch market, harming consumers and excluding rivals to keep its monopoly position.

268. Apple's conduct thus violates Section 2 of the Sherman Act, 15 U.S.C. § 2.

VIII. SECOND COUNT

(Attempted Monopolization, 15 U.S.C. § 2)

269. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

270. For purposes of antitrust review, there exists a relevant market, or in the alternative submarket, for the sale of health watches in the United States.

271. Apple has monopoly power in the health watch market. To the extent Apple does not already have monopoly power in that market, and in the alternative, Apple is at least willfully and wrongfully attempting to obtain monopoly power. Apple is willfully engaging in the above-pleaded course of conduct, including anticompetitive and exclusionary actions, with the specific intent of achieving monopoly power and monopolizing this market. Apple is engaged in anticompetitive conduct and an ongoing and overarching anticompetitive scheme designed to maintain its monopoly power in the health watch market. By engaging in the above-pleaded conduct, Apple is at least attempting to obtain monopoly power, and severely impeding and undermining competition in the health watch market. By engaging in the above-pleaded conduct, Apple is also leveraging its monopoly power in the iOS distribution app market to harm competition in the separate health watch market. Through such unlawful monopoly leveraging, Apple is harming competition at least attempting to obtain a monopoly position in the health watch market. There is at least a dangerous probability that, unless restrained, Apple will succeed in obtaining monopoly power in the health watch market.

272. Apple is not competing on the merits and does not have a more efficient production or superior product quality. Instead, Apple is obtaining or, in the alternative, is attempting to obtain, its dominant share of the market through a variety of anticompetitive means. Apple's

conduct has directly resulted in demonstrable harm to competitive processes in the affected market, including an adverse effect on prices, fewer choices and inferior products, raising rivals' costs, and limiting rivals' market penetration. Apple's unlawful conduct will directly and proximately cause injury or loss to interstate commerce and to consumers.

273. Apple's unlawful conduct further harms competition and thereby causes and threatens injury or loss to Masimo's business, property, and competitive position, which will continue unless Apple's anticompetitive conduct is restrained by the issuance of injunctive relief. Specifically, Masimo has lost and will lose substantial sales and profits from within the health watch market that would take place but for Apple's behavior. Masimo's injuries are of the type that antitrust laws are intended to prohibit, and flow directly from Apple's anticompetitive conduct in violation of Section 2 of the Sherman Act.

274. Masimo has antitrust standing and has suffered losses in proximate consequence of the anticompetitive character of Apple's attempted monopolization of these markets (i.e., Masimo has suffered compensable antitrust injuries). These losses remain ongoing, since Apple persists in the above-pleaded anticompetitive conduct.

275. Without injunctive relief, Apple will continue at least attempting to monopolize and restrain trade in the health watch market, harming consumers and excluding rivals.

276. Apple's conduct thus violates Section 2 of the Sherman Act, 15 U.S.C. § 2.

IX. THIRD COUNT

(Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a))

277. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

278. Through the actions described above, Apple has made false, misleading, and deceptive descriptions and representations of fact about the Apple Watch products, which are offered in interstate commerce. These statements misrepresent the nature, characteristics, or qualities of the Apple Watch and its purported pulse oximetry, irregular rhythm notification, and ECG capabilities. Apple's statements are expressly false, impliedly false, or both. On information and belief, this advertising and promotion was conducted in bad faith. Apple has made those statements throughout the U.S., including in Delaware and California.

279. At all relevant times, Apple knew or should have known that its advertising and promotional activities described herein were false, misleading, and deceptive.

280. Apple's false and misleading statements have deceived, or have the tendency to deceive, a substantial segment of their intended audience about matters that are material to purchasing decisions. Customers were misled as to the capabilities of the Apple Watch.

281. At all relevant times, Apple's false and misleading statements were and are made in commercial advertising and promotion in interstate commerce and violate Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a).

282. Apple's false, deceptive, and/or misleading advertising and promotion has caused injury to Masimo in the form of lost sales, commercial interest, loss of reputation, and legal expenses. Masimo's injuries flowed directly from the deception wrought by Apple's false, deceptive, and/or misleading advertising and promotion. Potential Masimo consumers withheld purchasing products and services from Masimo, including purchases of the W1 and related services, based on Apple's advertising and promotion statements.

283. As a direct, proximate, and foreseeable result of Apple's actions, Masimo is likely to suffer, has suffered, and will continue to suffer damages to its business and goodwill, the loss

of sales and profits it would have made but for Apple's wrongful acts, and increased advertising and marketing costs, all in an amount to be proven at trial. Without injunctive relief, Masimo will continue suffering irreparable harm.

X. FOURTH COUNT

(California's False Advertising Law Cal. Bus. & Prof. Code §§ 17500, *et seq.*)

284. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

285. Apple is subject to California's False Advertising Law, Cal. Bus. & Prof. Code §§ 17500, *et seq*. Under that law, it is "unlawful, for any person . . . to make or disseminate or cause to be made or disseminated before the public in this states, . . . [in] any advertising device . . . or in any other manner or means whatever, including over the Internet, any statement concerning . . . personal property or those services, professional or otherwise, or concerning any circumstance or matter of fact connected with the proposed performance or disposition thereof, which is untrue or misleading, and which is known, or which by the existence of reasonable care should be known, to be untrue or misleading."

286. Through the actions described above, Apple has made false, misleading, and deceptive descriptions and representations of fact about the Apple Watch products, which are offered in interstate commerce. These statements misrepresent the nature, characteristics, or qualities of the Apple Watch and its purported pulse oximetry, irregular rhythm notification, and ECG capabilities. Apple's statements are expressly false, impliedly false, or both. On information and belief, this advertising and promotion was conducted in bad faith. Apple has made those statements throughout the U.S., including in Delaware and California.

287. Apple knew or should have known through the exercise of reasonable care that its representations about the Apple Watch's pulse oximetry, irregular rhythm notification, and ECG capabilities were untrue and misleading.

288. Apple's actions in violation of California's False Advertising Law were false and misleading such that the general public is and was likely to be deceived.

289. Apple's false, deceptive, and/or misleading advertising and promotion has caused injury to Masimo in the form of lost sales, commercial interest, loss of reputation, and legal expenses. Masimo's injuries flowed directly from the deception wrought by Apple's false, deceptive, and/or misleading advertising and promotion. Potential Masimo consumers withheld purchasing products and services from Masimo, including purchases of the W1 and related services, based on Apple's advertising and promotion statements.

290. Consumers would not have purchased the Apple Watch on the same terms if they knew the truth about the Apple Watch's pulse oximetry, irregular rhythm notification, and ECG capabilities. Customers were misled as to the capabilities of the Apple Watch.

291. As a direct, proximate, and foreseeable result of Apple's actions, Masimo is likely to suffer, has suffered, and will continue to suffer damages to its business and goodwill, the loss of sales and profits it would have made but for Apple's wrongful acts, and increased advertising and marketing costs, all in an amount to be proven at trial.

292. Apple's conduct has injured Masimo and the general public, and unless enjoined, will continue to cause irreparable harm to Masimo and the general public. The balance of equities and the public interest favor enjoining Apple's unlawful conduct. Masimo is therefore entitled to equitable relief including injunctive relief as set forth in its Prayer for Relief.

XI. FIFTH COUNT

(Delaware Deceptive Trade Practices Act 6 Del. C. § 2532)

293. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

294. Apple is subject to Delaware's Deceptive Trade Practices Act (DTPA), 6 Del. C. § 2532 *et seq*. Under the DTPA, "a person engages in a deceptive trade practice when, in the course of a business, vocation, or occupation, that person: . . . (5) Represents that goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, or quantities that they do not have . . . (7) Represents that goods or services are of a particular standard, quality, or grade, or that goods are of a particular style or model, if they are of another . . . (9) Advertises goods or services with intent not to sell them as advertised . . . or (12) Engages in any other conduct which similarly creates a likelihood of confusion or of misunderstanding."

295. Through the actions described above, Apple has made false, misleading, and deceptive descriptions and representations of fact about the Apple Watch products, which are offered in interstate commerce. These statements misrepresent the nature, characteristics, or qualities of the Apple Watch and its purported pulse oximetry, irregular rhythm notification, and ECG capabilities. Apple's statements are expressly false, impliedly false, or both. Apple's false, misleading, and deceptive statements and advertisements are ongoing. On information and belief, this advertising and promotion was conducted in bad faith. Apple has made those statements throughout the U.S., including in Delaware and California.

296. At all relevant times, Apple knew or should have known that its advertising and promotional activities described herein were false, misleading, and deceptive.

297. Apple's false and misleading statements have deceived, or have the tendency to deceive, a substantial segment of their intended audience about matters that are material to purchasing decisions. Customers were misled as to the capabilities of the Apple Watch.

298. Apple's false, deceptive, and/or misleading conduct led to injury to Masimo by deceiving and/or having the tendency to deceive customers from engaging in business with Masimo, reducing Masimo's commercial interest, harming its reputation, and causing lost sales. Apple's deceptive statements were material to customers' purchasing decisions, by design, because they falsely claim the Apple Watch has capabilities it does not have.

299. Masimo's injuries flow directly from the deception wrought by Apple's false, deceptive, and/or misleading statements. Masimo's current and potential consuemrs have withheld purchasing products and services from Masimo, including purchases of the W1, based on Apple's advertising and promotion statements.

300. Apple's acts alleged herein constitute unfair competition in violation of the Delaware Deceptive Trade Practices Act, 6 Del. § 2532. For example, Apple's false and misleading statements violate at least 6 Del. C. § 2532(a)(5), (7), (9), and (12).

301. As a direct, proximate, and foreseeable result of Apple's actions, Masimo has suffered, and unless Apple's actions are enjoined by this Court, will continue to suffer, irreparable harm.

302. As a direct and proximate result of Apple's conduct, Masimo has suffered and will continue to suffer damages in an amount to be proved at trial, and Masimo is entitled to compensation and other monetary relief to the fullest extend allowed by law, pursuant to 6 Del. C. § 2533(a), including attorneys' fees, costs, and enhanced damages under 6 Del. C. § 2533(b), (c).

XII. SIXTH COUNT

(Violation of California's Unfair Competition Law

Cal. Bus. & Prof. Code §§ 17200, et seq.)

303. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

304. Apple is subject to California's Unfair Competition Law, Cal. Bus. & Prof. Code §§ 17200, *et seq*. Under the UCL: "Unfair competition shall mean and include unlawful, unfair or fraudulent business practices and unfair, deceptive, untrue or misleading advertising . . . ."

305. Apple's conduct is "unlawful" under the Unfair Competition Law because Apple has violated at least the Sherman Act, Lanham Act, California False Advertising Law, and the Delaware Deceptive Trade Practices Act.

306. Apple's conduct is "unfair" under the Unfair Competition Law because Apple's conduct constitutes an incipient violation of the antitrust laws, and a violation of the policy and spirit of those laws with comparable effects. Apple's false advertising and other conduct is also substantially injurious to consumers and Masimo, offends public policy, and is immoral, unethical, oppressive, and unscrupulous. Such conduct also violates the "unfair, deceptive, untrue or misleading advertising" portion of the Unfair Competition Law.

307. Apple's conduct is "fraudulent" under the Unfair Competition Law because Apple has falsely and fraudulently advertised its products as discussed above, and fraudulently obtained and enforced its patents.

308. Apple has engaged in such conduct throughout the U.S., including in Delaware and California.

309. Apple's conduct has injured Masimo and the general public, and unless enjoined, will continue to cause irreparable harm to Masimo and the general public. The balance of equities and the public interest favor enjoining Apple's unlawful, unfair, and fraudulent conduct. Masimo is therefore entitled to equitable relief including injunctive relief as set forth in its Prayer for Relief.

XIII. SEVENTH COUNT

(Infringement of U.S. Patent No. 10,912,501)

310. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

311. Masimo is informed and believes and thereupon alleges that Apple makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

312. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '501 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 1 of the '501 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 11.

313. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '501 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the patent no later than June 30, 2021, when Masimo filed a complaint with the International Trade Commission alleging infringement of that patent.

314. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '501 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the

Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '501 Patent.

315. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '501 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '501 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '501 Patent.

316. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '501 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '501 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

317. Because of Apple's infringement of the '501 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

318. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts,

thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XIV. EIGHTH COUNT

(Infringement of U.S. Patent No. 10,912,502)

319. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

320. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

321. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '502 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 19 of the '502 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 12.

322. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '502 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the patent no later than June 30, 2021, when Masimo filed the complaint in the ITC Investigation alleging infringement of that patent.

323. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '502 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused

Products would be used by customers and end users in a manner that directly infringes the '502 Patent.

324. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '502 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '502 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '502 Patent.

325. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '502 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '502 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

326. Because of Apple's infringement of the '502 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

327. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XV. NINTH COUNT

(Infringement of U.S. Patent No. 10,945,648)

328. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

329. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

330. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '648 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 1 of the '648 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 13.

331. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '648 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the patent no later than June 30, 2021, when Masimo filed the complaint in the ITC Investigation alleging infringement of that patent.

332. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '648 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '648 Patent.

333. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '648 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '648 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '648 Patent.

334. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '648 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '648 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

335. Because of Apple's infringement of the '648 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

336. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XVI. TENTH COUNT

(Infringement of U.S. Patent No. 10,687,743)

337. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

338. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

339. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '743 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 1 of the '743 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 14.

340. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '743 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the '743 Patent no later than August 30, 2021, when Masimo identified it to Apple in the ITC Investigation in response to Apple's Interrogatory No. 29.

341. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '743 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '743 Patent.

342. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '743 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '743 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '743 Patent.

343. Masimo is informed and believes and thereupon alleges that Masimo is informed and believes and thereupon alleges that Apple's infringement of the '743 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '743 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

344. Because of Apple's infringement of the '743 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

345. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XVII. ELEVENTH COUNT

(Infringement of U.S. Patent No. 10,687,745)

346. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

347. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

348. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '745 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 1 of the '745 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 15.

349. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '745 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the patent no later than June 30, 2021, when Masimo filed the complaint in the ITC Investigation alleging infringement of that patent.

350. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '745 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '745 Patent.

351. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '745 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '745 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '745 Patent.

352. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '745 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '745 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

353. Because of Apple's infringement of the '745 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

354. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XVIII. TWELFTH COUNT

(Infringement of U.S. Patent No. 10,722,159)

355. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

356. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

357. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '159 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 1 of the '159 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 16.

358. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '159 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the '159 Patent no later than August 30, 2021, when Masimo identified it to Apple in the ITC Investigation in response to Apple's Interrogatory No. 29.

359. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '159 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '159 Patent.

360. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '159 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '159 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '159 Patent.

361. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '159 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '159 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

362. Because of Apple's infringement of the '159 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

363. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XIX. THIRTEENTH COUNT

(Infringement of U.S. Patent No. 7,761,127)

364. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

365. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

366. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '127 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 7 of the '127 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 17.

367. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '127 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the patent no later than June 30, 2021, when Masimo filed the complaint in the ITC Investigation alleging infringement of that patent.

368. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '127 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '127 Patent.

369. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '127 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '127 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '127 Patent.

370. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '127 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '127 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

371. Because of Apple's infringement of the '127 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

372. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XX. FOURTEENTH COUNT

(Infringement of U.S. Patent No. 8,190,223)

373. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

374. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

375. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '223 Patent. For example, Apple Watch Series 6 features each aspect of the invention recited in Claim 27 of the '223 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 18.

376. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '223 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the '223 Patent no later than August 30, 2021, when Masimo identified it to Apple in the ITC Investigation in response to Apple's Interrogatory No. 29.

377. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '223 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '223 Patent.

378. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '223 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '223 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '223 Patent.

379. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '223 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '223 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

380. Because of Apple's infringement of the '223 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

381. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XXI. FIFTEENTH COUNT

(Infringement of U.S. Patent No. 10,736,507)

382. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

383. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

384. Masimo is informed and believes and thereupon alleges that the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '507 Patent. For example, using Apple Watch Series 6 to measure oxygen saturation practices each aspect of the invention recited in Claim 13 of the '507 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 19.

385. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '507 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Masimo filed provisional patent application no. 61/703,729, which led to the '507 Patent, on September 20, 2012, while Dr. O'Reilly and Lamego were affiliated with Masimo and/or Cercacor. Upon information and belief, Apple knew of the '507 Patent at least based on Dr. O'Reilly's and Lamego's former positions with Masimo and Masimo's spin-off company, Cercacor. Apple had knowledge of the '507 Patent no later than September 10, 2021, when it produced four copies of the published application underlying the issued '507 Patent (U.S. Pat. App. Pub. No. 2019/0000317) during discovery in the ITC Investigation.

386. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '507 Patent by marketing and selling the Accused Products and providing directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '507 Patent.

387. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '507 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '507 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '507 Patent.

388. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '507 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '507 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

389. Because of Apple's infringement of the '507 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

390. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately

compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts, thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XXII. SIXTEENTH COUNT

(Infringement of U.S. Patent No. 10,984,911)

391. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

392. Masimo is informed and believes and thereupon alleges that Apple directly or indirectly makes, uses, offers to sell, and/or sells within the United States and/or imports into the United States the Accused Products.

393. Masimo is informed and believes and thereupon alleges that the use of the Accused Products practice literally or under the doctrine of equivalents inventions recited in the claims of the '911 Patent. For example, using Apple Watch Series 6 to measure oxygen saturation and/or heart rate practices each aspect of the invention recited in Claim 19 of the '911 Patent, as illustrated in the infringement claim chart attached hereto as Exhibit 20.

394. Masimo is informed and believes and thereupon alleges that Apple had knowledge of the '911 Patent and/or showed willful blindness to its existence and persisted with its infringement despite that knowledge. Apple had knowledge of the '911 Patent no later than August 30, 2021, when Masimo identified it to Apple in the ITC Investigation in response to Apple's Interrogatory No. 29.

395. Masimo is informed and believes and thereupon alleges that Apple actively induced others to infringe the '911 Patent by marketing and selling the Accused Products and providing

directions, demonstrations, guides, manuals, or training or other materials necessary for use of the Accused Products, knowing and intending or showing willful blindness to the fact that the Accused Products would be used by customers and end users in a manner that directly infringes the '911 Patent.

396. Masimo is informed and believes and thereupon alleges Apple contributorily infringed the '911 Patent by offering to sell and/or selling within the United States and/or importing into the United States, components of the Accused Products that constitute material parts of the inventions recited in the claims of the '911 Patent, are not staple articles or commodities of commerce suitable for substantial non-infringing use, and that Apple knows to be especially made or adapted for use in an infringement of the '911 Patent.

397. Masimo is informed and believes and thereupon alleges that Apple's infringement of the '911 Patent is willful, deliberate, and intentional because it continued its acts of infringement after becoming aware of the '911 Patent and its infringement thereof, thus acting in reckless disregard of Masimo's patent rights.

398. Because of Apple's infringement of the '911 Patent, Masimo has suffered and will continue to suffer irreparable harm and injury, including monetary damages in an amount to be determined at trial.

399. Masimo is informed and believes and thereupon alleges Masimo and Apple are direct competitors in the market of wearable electronic devices configured to operate as physiological monitors and/or featuring light-based pulse oximetry and Apple's unauthorized, infringing sales are likely to cause irreparable harm to Masimo, which cannot be adequately compensated by money damages. Masimo is informed and believes and thereupon alleges that, unless enjoined, Apple, and/or others acting on behalf of Apple, will continue their infringing acts,

thereby causing additional irreparable injury to Masimo for which there is no adequate remedy at law.

XXIII. SEVENTEENTH COUNT

(Declaratory Judgment of Noninfringement of the '257 Patent)

400. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

401. Apple contends that it owns the '257 Patent and that Masimo infringes at least claim 1 of the '257 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

402. There exists an actual and justiciable controversy between Apple and Masimo regarding whether Masimo has infringed any claims of the '257 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

403. Masimo's W1 does not infringe any claims of the '257 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include "a heart sensor configured to detect the user's cardiac signal, the heart sensor comprising: a first lead comprising a first pad that is embedded in a first portion of the enclosure, wherein an exterior surface of the enclosure comprises an exterior surface of the first portion, wherein the first pad is positioned underneath the exterior surface of the first portion, and wherein the first pad is configured to detect a first electrical signal of the user's cardiac signal via the user's skin's contact with the exterior surface of the first portion of the enclosure; and a second lead comprising a second pad that is embedded in a second portion of the enclosure, wherein the second pad is configured to detect a

second electrical signal of the user's cardiac signal via the user's skin's contact with at least one of the second pad and the second portion of the enclosure."

404. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Masimo requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '257 Patent.

XXIV. EIGHTEENTH COUNT

(Declaratory Judgment of Noninfringement of the '783 Patent)

405. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

406. Apple contends that it owns the '783 Patent, and that Masimo infringes at least claim 9 of the '783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

407. There exists an actual and justiciable controversy between Apple and Masimo regarding whether Masimo has infringed any claims of the '783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

408. Masimo's W1 does not infringe any claims of the '783 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include "a biosensor module aligned with the opening" and "a wireless charging receive coil positioned with the housing and aligned with the opening."

409. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Masimo requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '783 Patent.

XXV. NINETEENTH COUNT

(Declaratory Judgment of Noninfringement of the '491 Patent)

410. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

411. Apple contends that it owns the '491 Patent, and that Masimo infringes at least claim 7 of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch and charger.

412. There exists an actual and justiciable controversy between Apple and Masimo regarding whether Masimo has infringed any claims of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch and charger, and this controversy is ripe for adjudication by this Court.

413. Masimo's W1 does not infringe any claims of the '491 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include "a biosensor module positioned below the cover configured to pass an optical signal through a window defined within the non-conductive material of the cover; and a wireless charging receive coil aligned with the second opening and below the cover, the wireless charging receive coil configured to inductively couple to an external wireless charging device through the nonconductive material of the cover."

414. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Masimo requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger not infringe any valid and enforceable claim of the '491 Patent.

XXVI. TWENTIETH COUNT

(Declaratory Judgment of Noninfringement of the '054 Patent)

415. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

416. Apple contends that it owns the '054 Patent, and that Masimo infringes at least claim 9 of the '054 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

417. There exists an actual and justiciable controversy between Apple and Masimo regarding whether Masimo has infringed any claims of the '054 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

418. Masimo's W1 does not infringe any claims of the '054 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include "carrier assembly coupled to the rectangular housing member and comprising: a carrier member having a circular carrier profile and positioned over the circular rear opening; a rear electrode positioned on the carrier member and configured to receive a first voltage signal from a wrist of a user; an optical sensor system comprising: an optical emitter positioned below a first region of the carrier member; and an optical receiver positioned below a second region of the carrier member; a side electrode positioned along an exterior of the rectangular housing member and configured to receive a second voltage signal from a finger of the user."

419. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Masimo requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 does not infringe any valid and enforceable claim of the '054 Patent.

XXVII. TWENTY-FIRST COUNT

(Declaratory Judgment of Noninfringement of the '352 Patent)

420. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

421. Apple contends that it owns the '352 Patent, and that Masimo infringes at least claim 9 of the '352 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

422. There exists an actual and justiciable controversy between Apple and Masimo regarding whether Masimo has infringed any claims of the '352 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

423. Masimo's W1 does not infringe any claims of the '352 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include "memory storing instructions, the instructions, when executed by the one or more processors, cause the processors to perform operations comprising: while the computer system is in a power saving state, detecting an input that meets display-waking criteria; in response to detecting the input that meets the display-waking criteria, displaying, via the display generation component, a wake screen user interface; while displaying the wake screen user interface, detecting a first input that is directed to a portion of the wake screen user interface and includes first movement."

424. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Masimo requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '352 Patent.

XXVIII. TWENTY-SECOND COUNT

(Declaratory Judgment of Noninfringement of the '483 Patent)

425. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

426. Apple contends that it owns the '483 Patent, and that Masimo infringes at least claim 1 of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

427. There exists an actual and justiciable controversy between Apple and Masimo regarding whether Masimo has infringed any claims of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch, and this controversy is ripe for adjudication by this Court.

428. Masimo's W1 does not infringe any claims of the '483 Patent, either literally or under the doctrine of equivalents, at least because the W1 does not include "biosensor module comprising: a rear cover positioned at least partially within the second opening and defining an optically transparent window and a protruding convex surface" and "a third electrode positioned along a side of the wearable electronic device."

429. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. ¶ 2201 *et seq.*, Masimo requests a judicial determination that the sale, offer for sale, manufacture, importation, or use of the W1 watch and charger do not infringe any valid and enforceable claim of the '483 Patent.

XXIX. TWENTY-THIRD COUNT

(Declaratory Judgment of Invalidity of the '257 Patent)

430. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

431. Apple contends that it owns the ’257 Patent and that Masimo infringes at least claim 1 of the ’257 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

432. There exists an actual and justiciable controversy between Apple and Masimo regarding the invalidity of one or more claims of the ’257 Patent, and this controversy is ripe for adjudication by this Court.

433. One or more claims of the ’257 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

434. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that one or more claims of the ’257 Patent are invalid.

XXX. TWENTY-FOURTH COUNT

(Declaratory Judgment of Invalidity of the ’783 Patent)

435. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

436. Apple contends that it owns the ’783 Patent and that Masimo infringes at least claim 9 of the ’783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

437. There exists an actual and justiciable controversy between Apple and Masimo regarding the invalidity of one or more claims of the ’783 Patent, and this controversy is ripe for adjudication by this Court.

438. One or more claims of the '783 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

439. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that one or more claims of the '783 Patent are invalid.

XXXI. TWENTY-FIFTH COUNT

(Declaratory Judgment of Invalidity of the '491 Patent)

440. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

441. Apple contends that it owns the '491 Patent and that Masimo infringes at least claim 7 of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch and charger.

442. There exists an actual and justiciable controversy between Apple and Masimo regarding the invalidity of one or more claims of the '491 Patent, and this controversy is ripe for adjudication by this Court.

443. One or more claims of the '491 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

444. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that one or more claims of the '491 Patent are invalid.

XXXII. TWENTY-SIXTH COUNT

(Declaratory Judgment of Invalidity of the '054 Patent)

445. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

446. Apple contends that it owns the '054 Patent and that Masimo infringes at least claim 9 of the '054 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

447. There exists an actual and justiciable controversy between Apple and Masimo regarding the invalidity of one or more claims of the '054 Patent, and this controversy is ripe for adjudication by this Court.

448. One or more claims of the '054 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

449. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that one or more claims of the '054 Patent are invalid.

XXXIII. TWENTY-SEVENTH COUNT

(Declaratory Judgment of Invalidity of the '352 Patent)

450. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

451. Apple contends that it owns the '352 Patent and that Masimo infringes at least claim 9 of the '352 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

452. There exists an actual and justiciable controversy between Apple and Masimo regarding the invalidity of one or more claims of the '352 Patent, and this controversy is ripe for adjudication by this Court.

453. One or more claims of the '352 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

454. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that one or more claims of the '352 Patent are invalid.

XXXIV. TWENTY-EIGHTH COUNT

(Declaratory Judgment of Invalidity of the '483 Patent)

455. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

456. Apple contends that it owns the '483 Patent and that Masimo infringes at least claim 1 of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

457. There exists an actual and justiciable controversy between Apple and Masimo regarding the invalidity of one or more claims of the '483 Patent, and this controversy is ripe for adjudication by this Court.

458. One or more claims of the '483 Patent are invalid for failure to comply with one or more of the conditions and requirements of patentability that are set forth in 35 U.S.C. §§ 101, 102, 103, and/or 112, and the rules, regulations, and laws pertaining thereto.

459. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that one or more claims of the '483 Patent are invalid.

XXXV. TWENTY-NINTH COUNT

(Declaratory Judgment of Unenforceability of the '783 Patent)

460. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

461. Apple contends that it owns the '783 Patent and that Masimo infringes at least claim 9 of the '783 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

462. There exists an actual and justiciable controversy between Apple and Masimo regarding the enforceability of the '783 Patent, and this controversy is ripe for adjudication by this Court.

463. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that the '783 Patent is unenforceable.

XXXVI. THIRTIETH COUNT

(Declaratory Judgment of Unenforceability of the '491 Patent)

464. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

465. Apple contends that it owns the '491 Patent and that Masimo infringes at least claim 7 of the '491 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

466. There exists an actual and justiciable controversy between Apple and Masimo regarding the enforceability of the '491 Patent, and this controversy is ripe for adjudication by this Court.

467. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that the '491 Patent is unenforceable.

XXXVII. THIRTY-FIRST COUNT

(Declaratory Judgment of Unenforceability of the '483 Patent)

468. Masimo incorporates by reference the allegations contained in all preceding paragraphs of these counterclaims.

469. Apple contends that it owns the '483 Patent and that Masimo infringes at least claim 1 of the '483 Patent by making, using, selling, offering to sell in the United States or importing into the United States the W1 watch.

470. There exists an actual and justiciable controversy between Apple and Masimo regarding the enforceability of the '483 Patent, and this controversy is ripe for adjudication by this Court.

471. Pursuant to the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.*, Masimo requests a judicial declaration that the '483 Patent is unenforceable.

MASIMO'S PRAYER FOR RELIEF

WHEREFORE, Masimo prays for judgment in its favor against Apple for the following relief.

A. A jury trial on all issues so triable;

B. That all claims against Masimo be dismissed with prejudice and that all relief requested by Apple be denied;

C. Judgment be entered in Masimo's favor on each cause of action in the counterclaims;

D. A declaration that Apple has violated Section 2 of the Sherman Act (15 U.S.C. § 2), Section 43(a) of the Lanham Act (15 U.S.C. § 1125(a)), California's False Advertising Law (Cal.

Bus. & Prof. Code §§ 17500), the Delaware Deceptive Trade Practices Act (6 Del. C. § 2532), and California Unfair Competition (Cal. Bus. & Prof. Code § 17200).

E. Injunctive relief from each of Apple's unlawful conduct.

F. Monetary damages to compensate Masimo for its injuries, a trebling of these damages, costs, and attorney's fees;

G. An order directing an accounting of all gains, profits, savings and advantages realized by Apple from its conduct as identified above, and an award to Masimo of the profits earned by Apple attributable to its unlawful and unfair conduct;

H. A determination that Apple and its officers, agents, servants, employees, attorneys, and all others in active concert and/or participation with them have infringed each of the Asserted Patents through the manufacture, use, importation, offer for sale, and/or sale of infringing products and/or any of the other acts prohibited by 35 U.S.C. § 271;

I. A determination, pursuant to 35 U.S.C. § 282, that each claim of the Asserted Patents is valid and enforceable;

J. An injunction enjoining Apple and its officers, agents, servants, employees, attorneys, and all others in active concert and/or participation with them from infringing the Asserted Patents through the manufacture, use, importation, offer for sale, and/or sale of infringing products and/or any of the other acts prohibited by 35 U.S.C. § 271, including preliminary and permanent injunctive relief;

K. Monetary damages to compensate Masimo for Apple's infringement of the Asserted Patents through payment of not less than a reasonable royalty on Apple's sales of infringing products, pursuant to 35 U.S.C. § 284;

L. An award increasing damages up to three times the amount found or assessed by the jury for Apple's infringement of each of the Asserted Patents in view of the willful and deliberate nature of Apple's infringement, pursuant to 35 U.S.C. § 284;

M. That a judgment be entered that Masimo has not and does not infringe (either literally or under the doctrine of equivalents) any valid, enforceable claim of the Apple Patents;

N. That a judgment be entered declaring the claims of the Apple Patents invalid and/or unenforceable;

O. That a judgment be entered declaring that it is the right of Masimo to continue to make, use, sell, and offer to sell its W1 watch and charger without any threat or other interference by Apple;

P. A finding that this is an exceptional case and an award of reasonable attorneys' fees and non-taxable costs, pursuant to 35 U.S.C. § 285;

Q. Prejudgment interest and costs; and

R. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38(b), Defendant Masimo Corporation and Counterclaimants Masimo Corporation and Cercacor Laboratories, Inc. demand a trial by jury on all issues so triable.

June 20, 2023

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